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Title	Multiple RNA structures affect translation initiation and UGA redefinition efficiency during synthesis of selenoprotein P
Authors	Mariotti, Marco;Shetty, Sumangala;Baird, Lisa;Wu, Sen;Loughran, Gary;Copeland, Paul R.;Atkins, John F.;Howard, Michael T.
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University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Supplementary Material S1. Nucleotide alignment of 131 vertebrate *Selenop* mRNAs.

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transcript variant X1, mRNA
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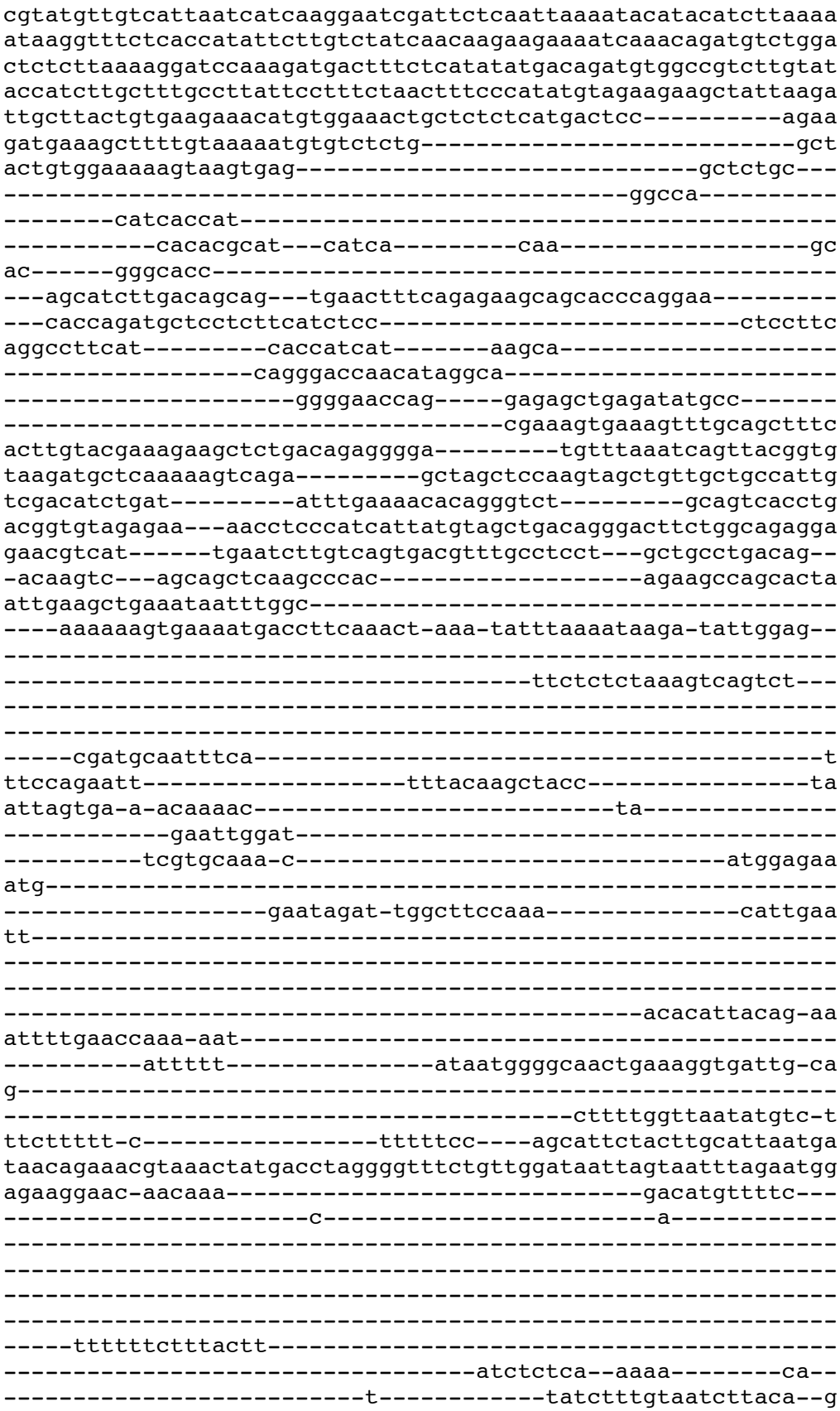
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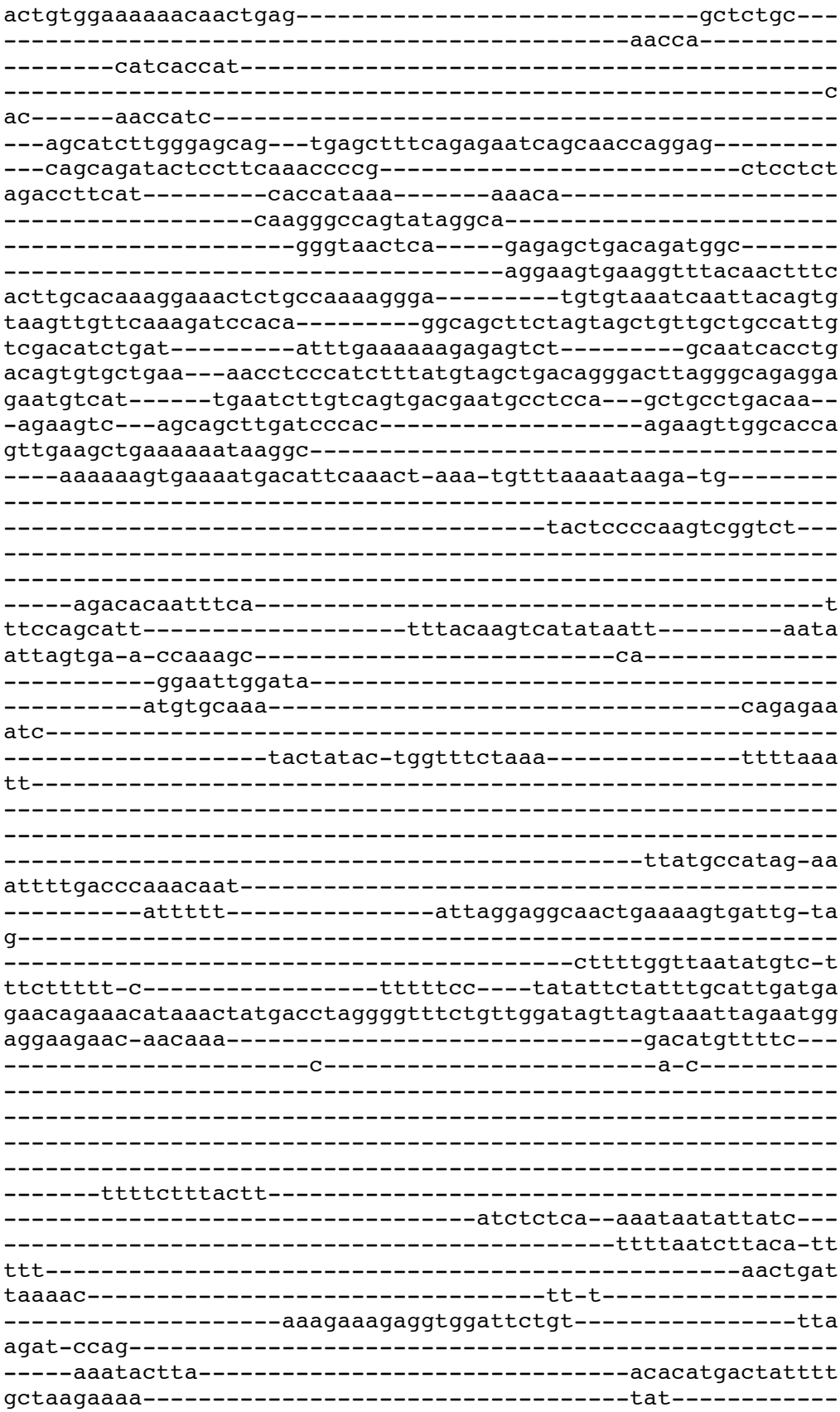
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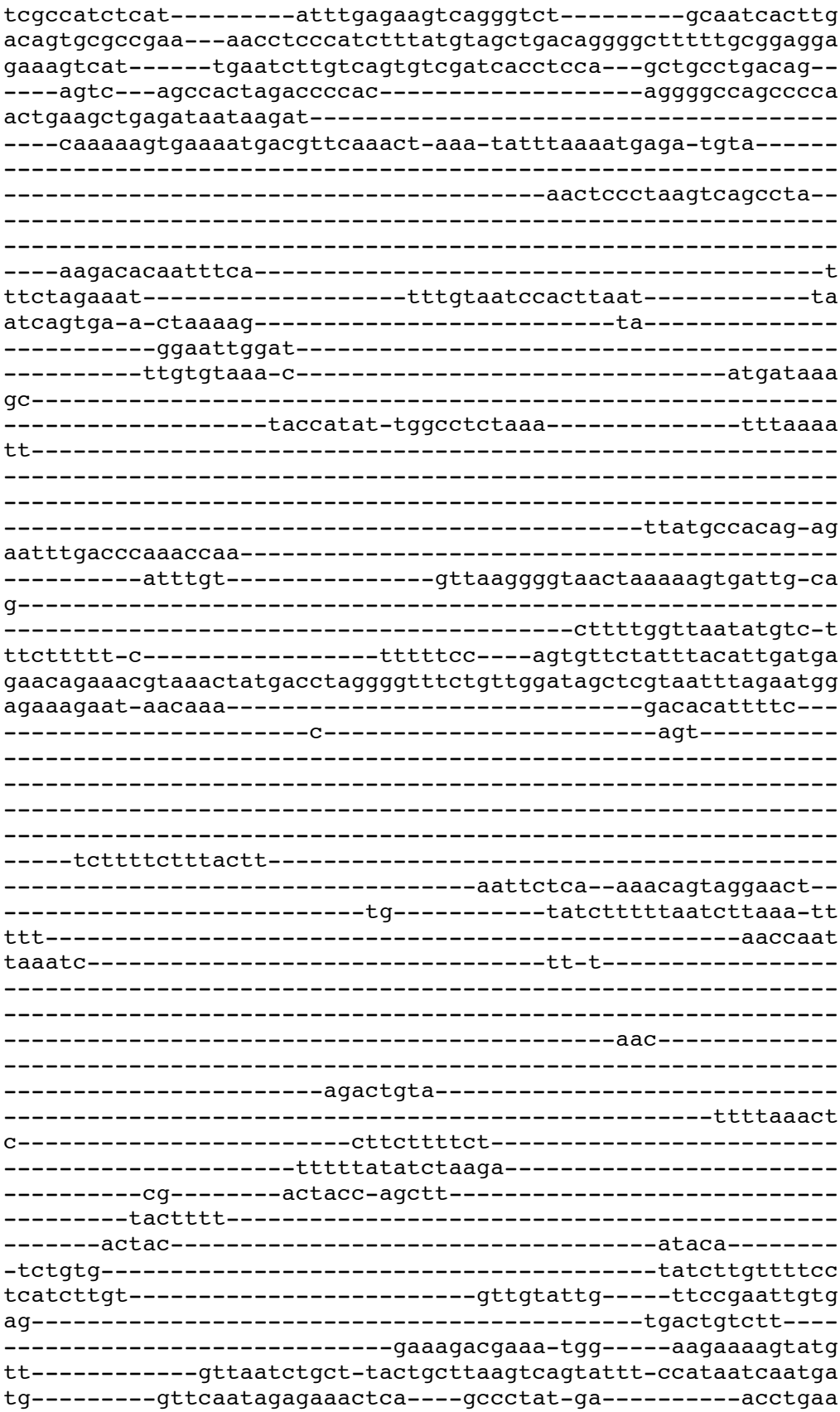
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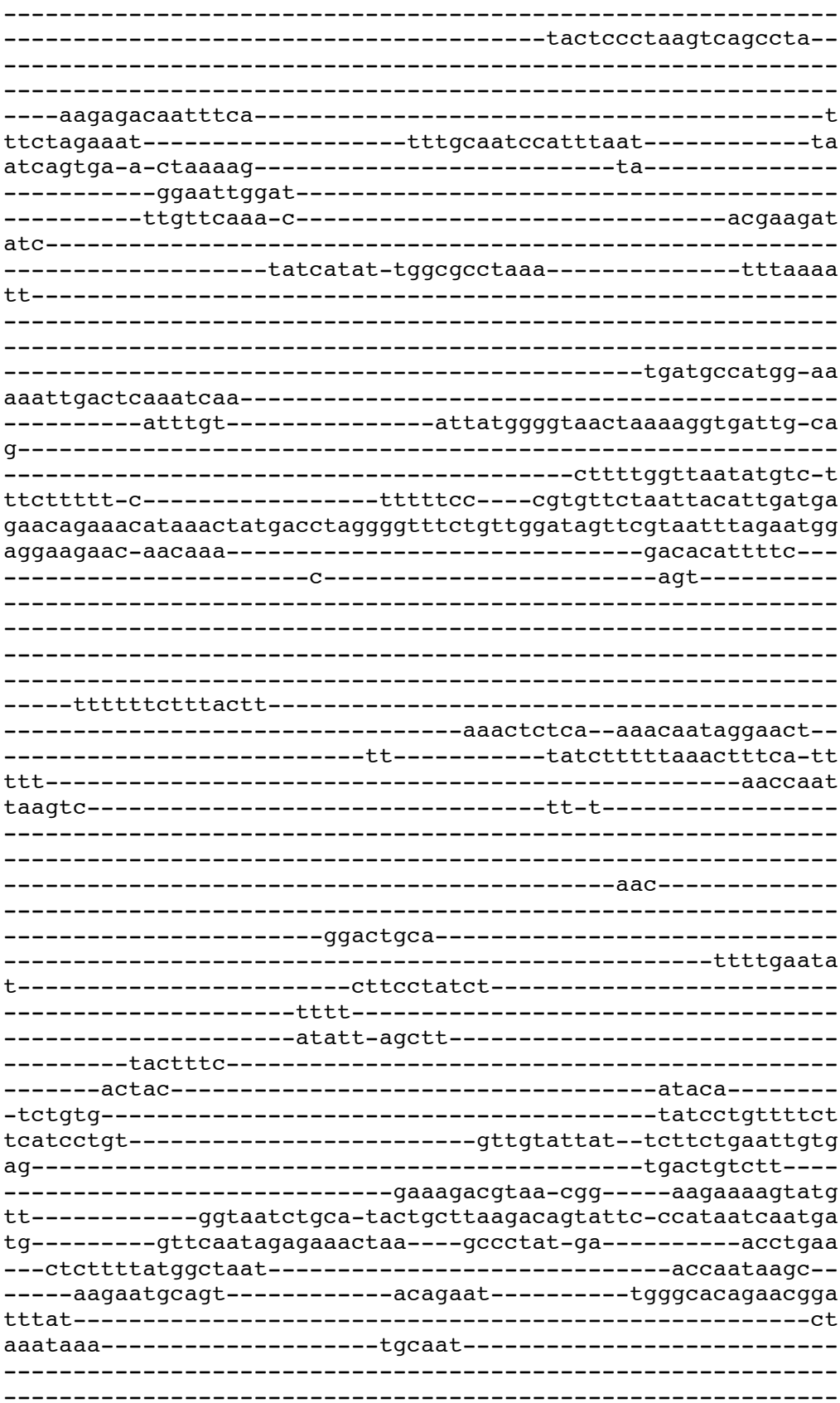
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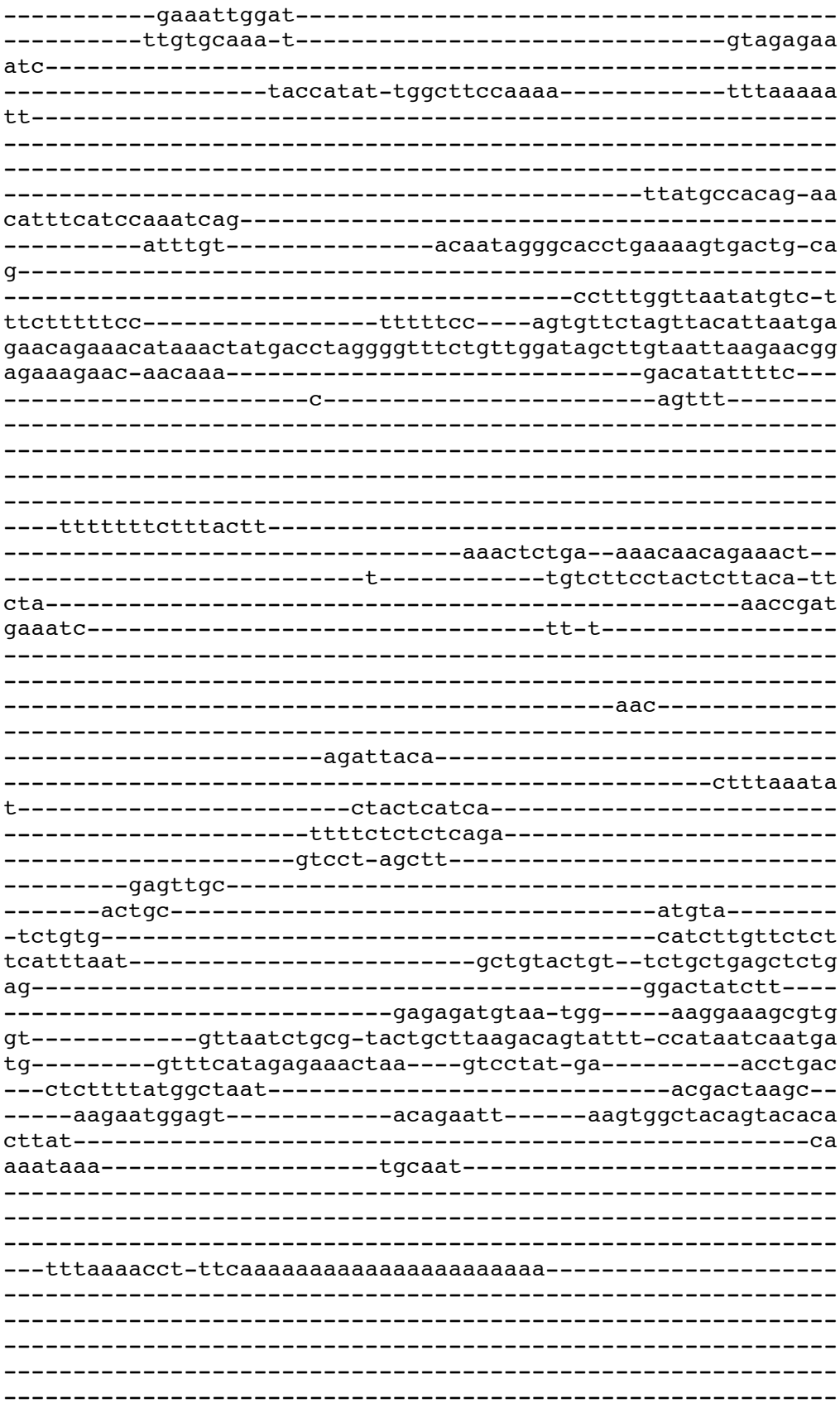
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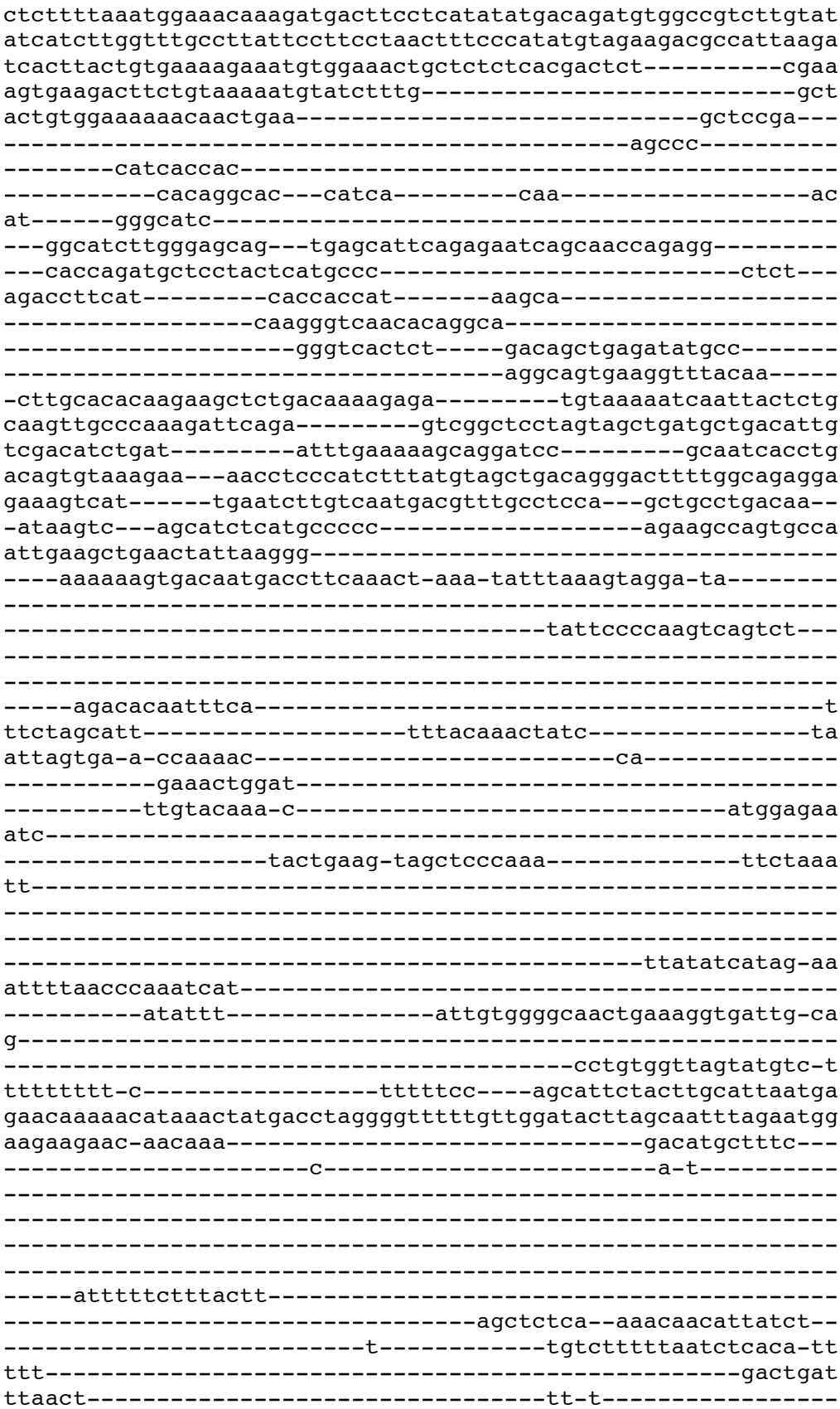




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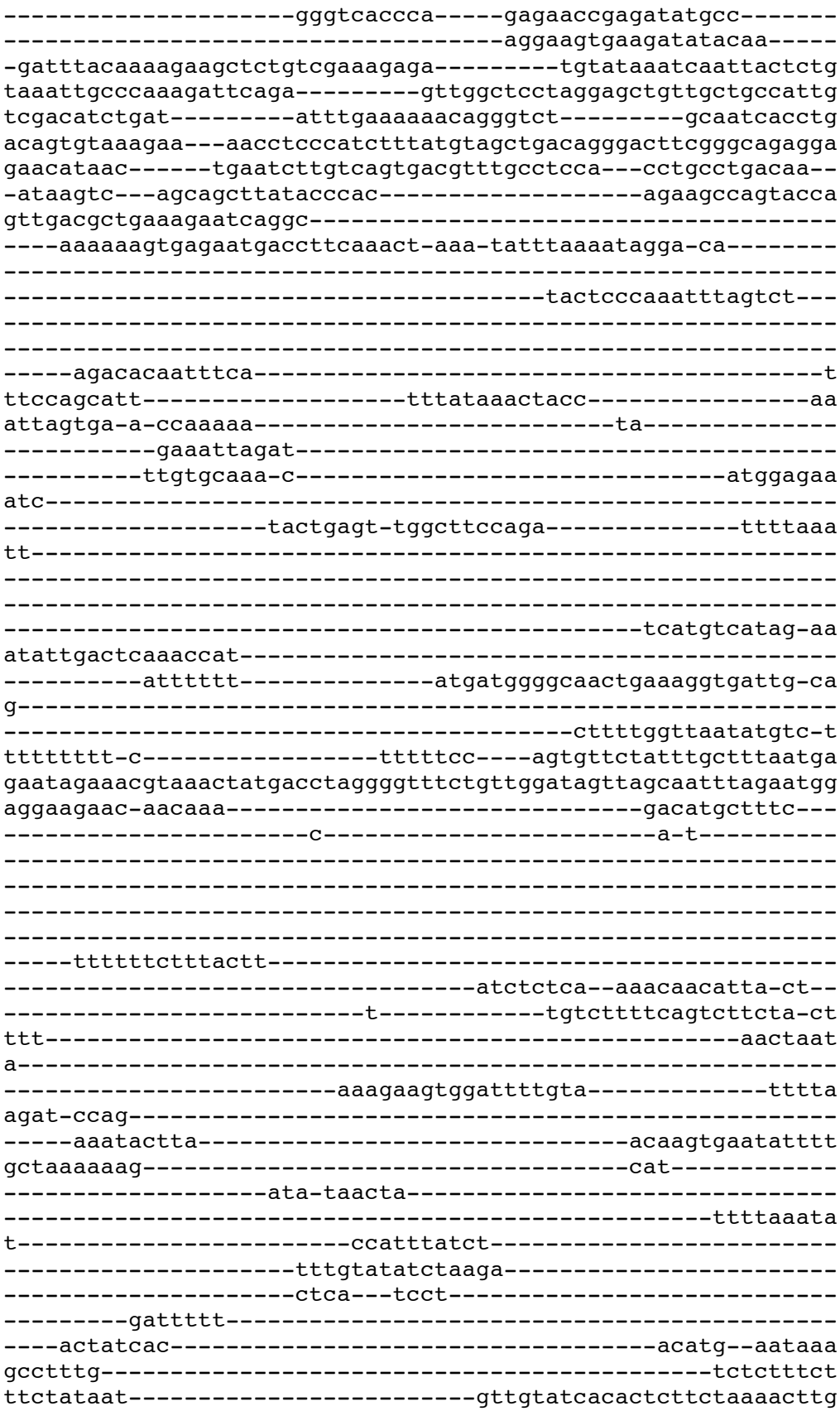
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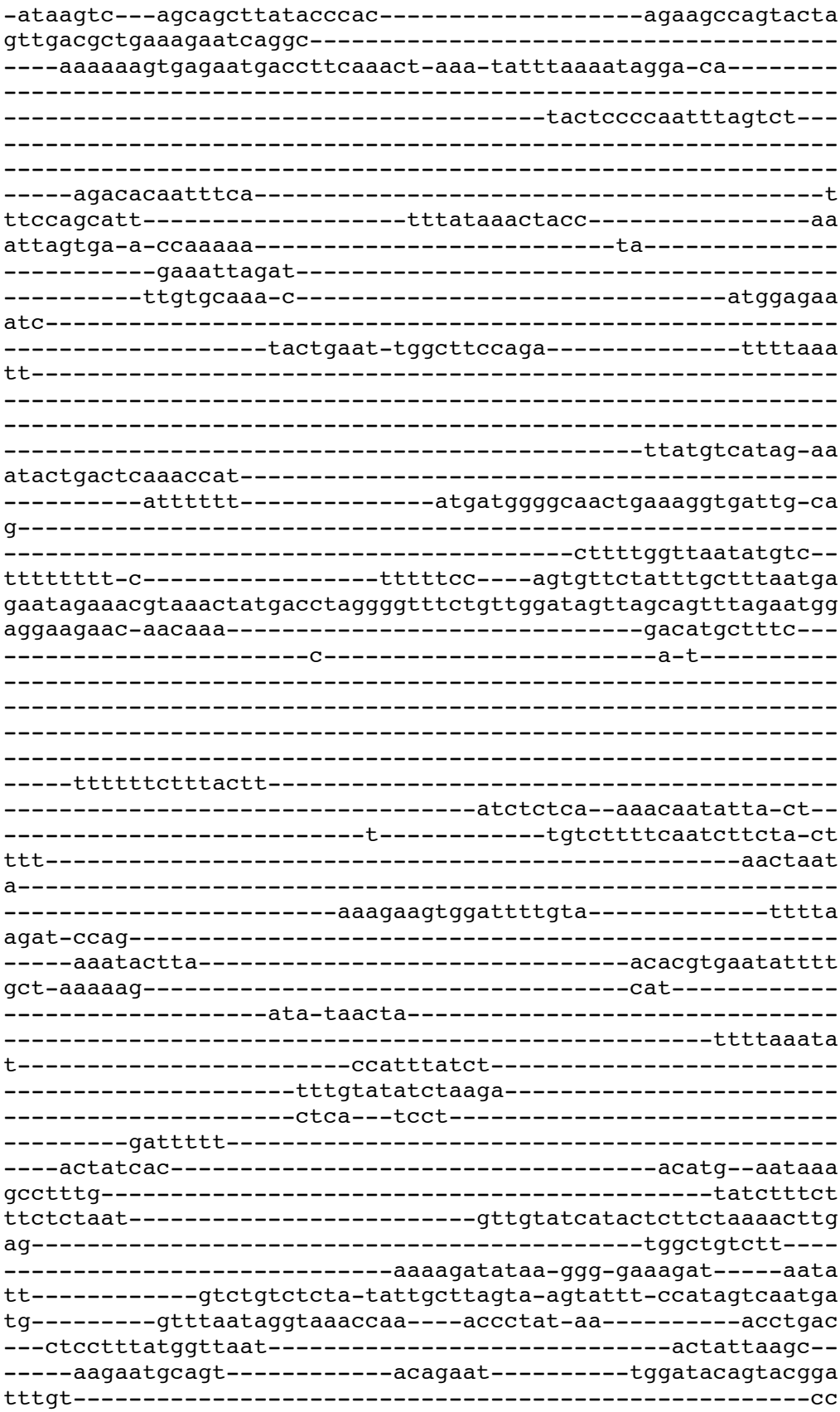
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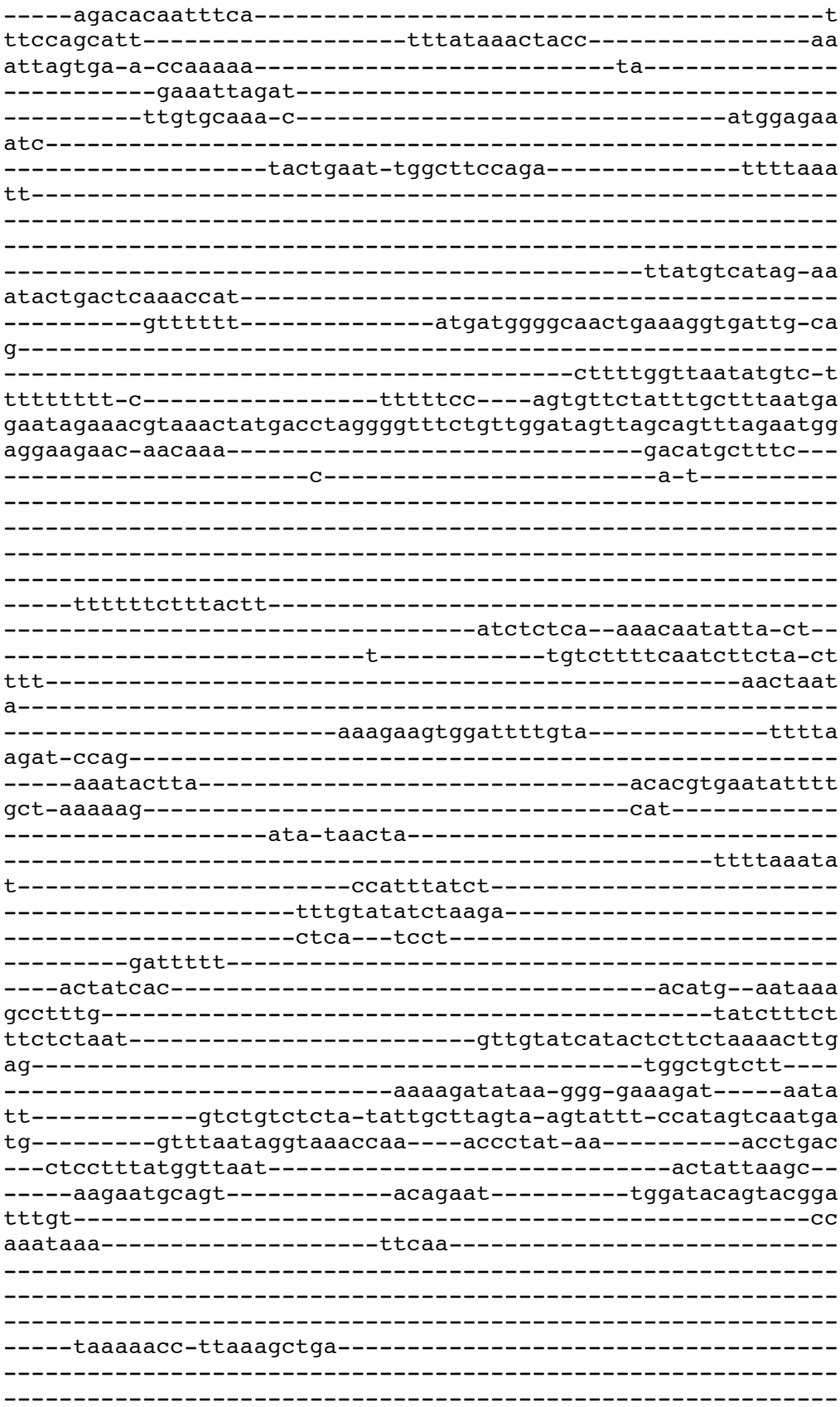
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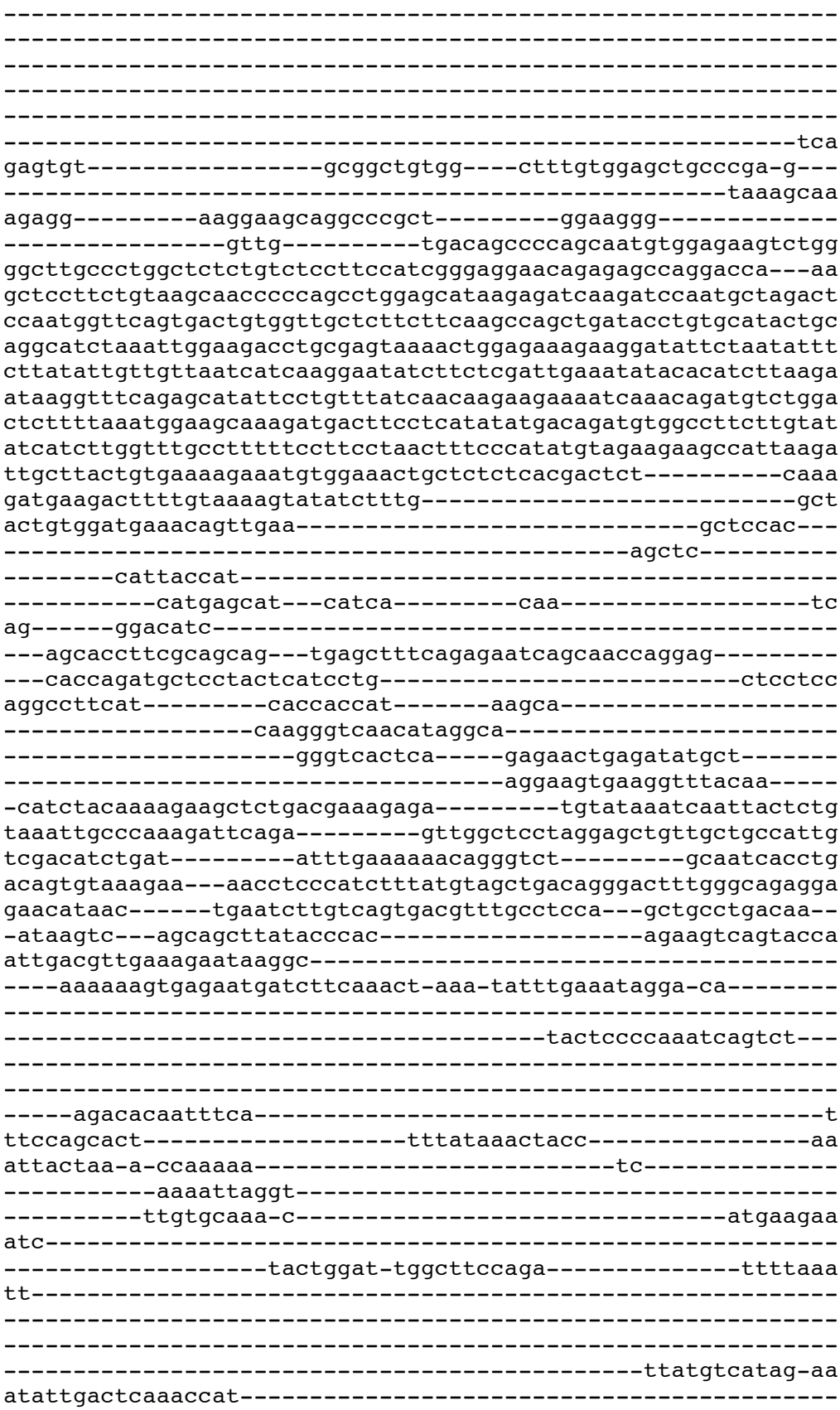
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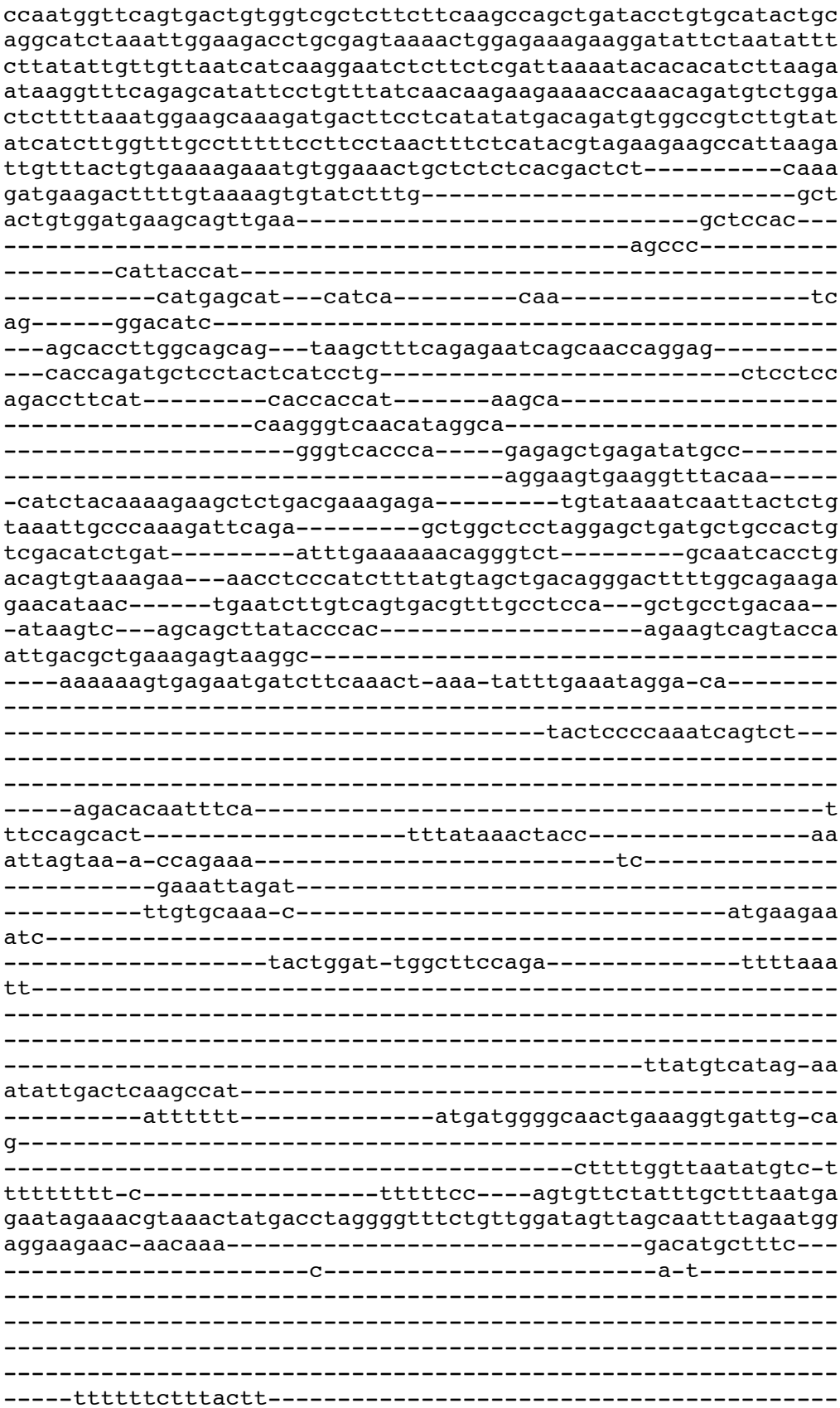
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(SEPP1), transcript variant X1, mRNA
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(SEPP1), mRNA
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>Papio_anubis XM_009208343.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
transcript variant X1, mRNA
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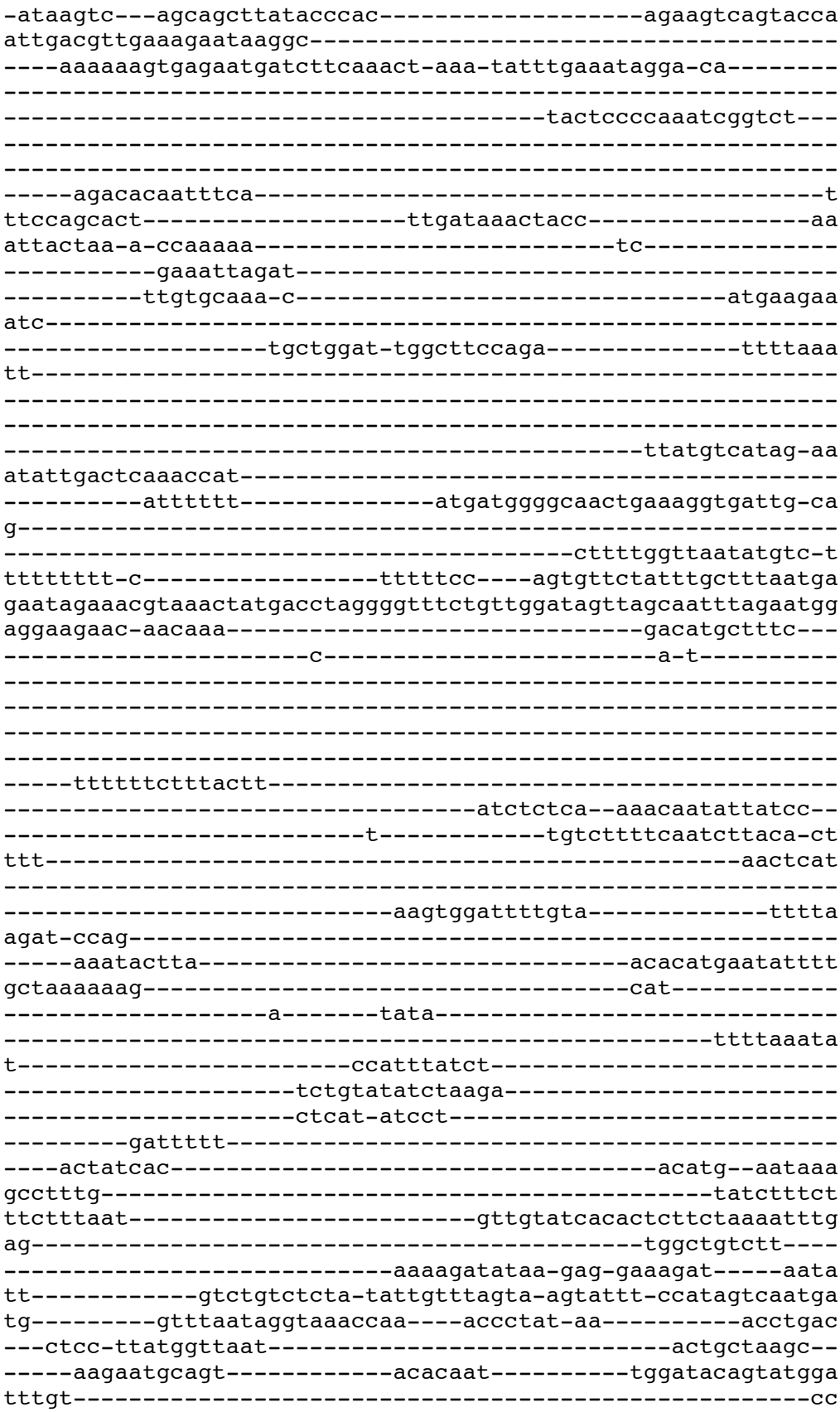
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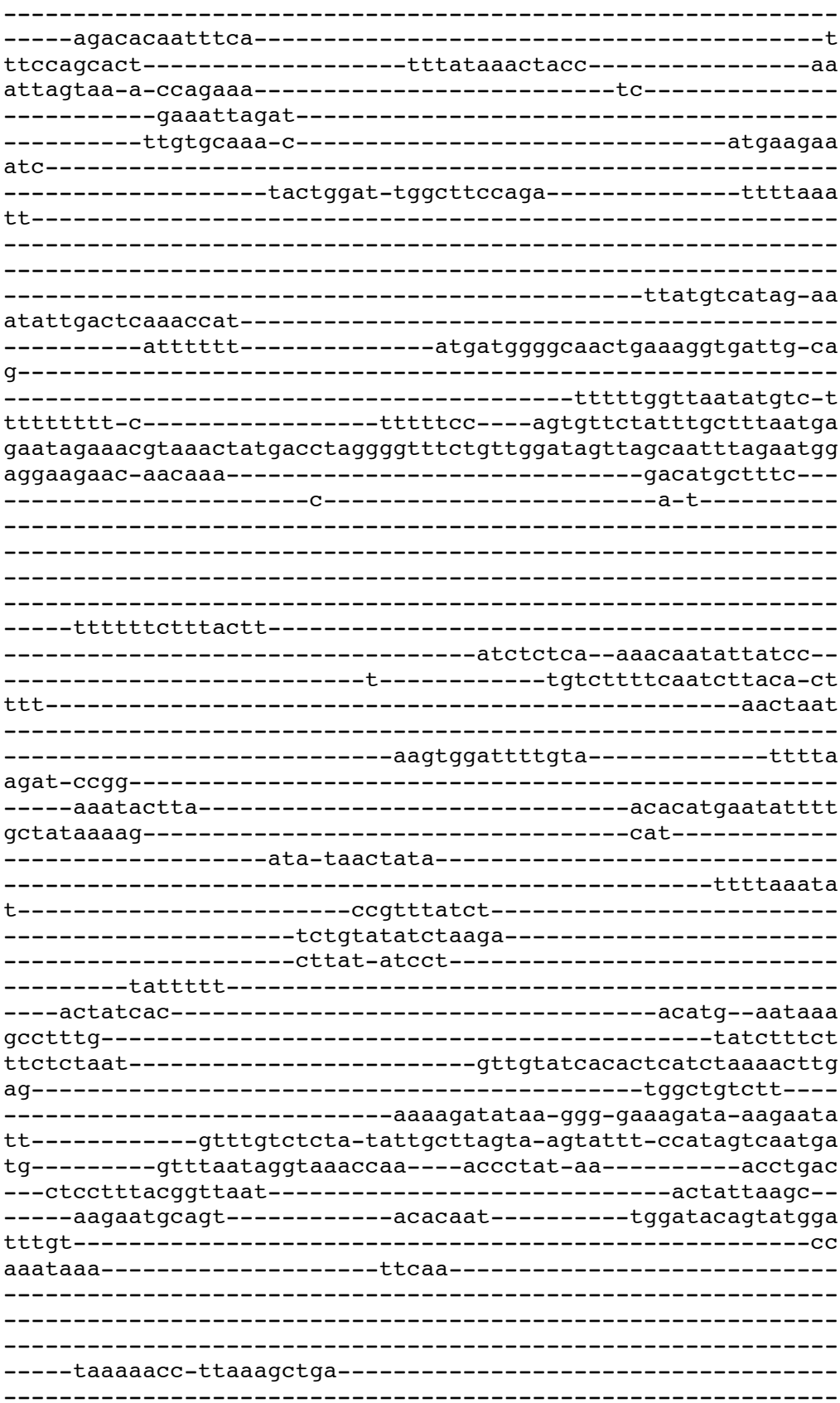
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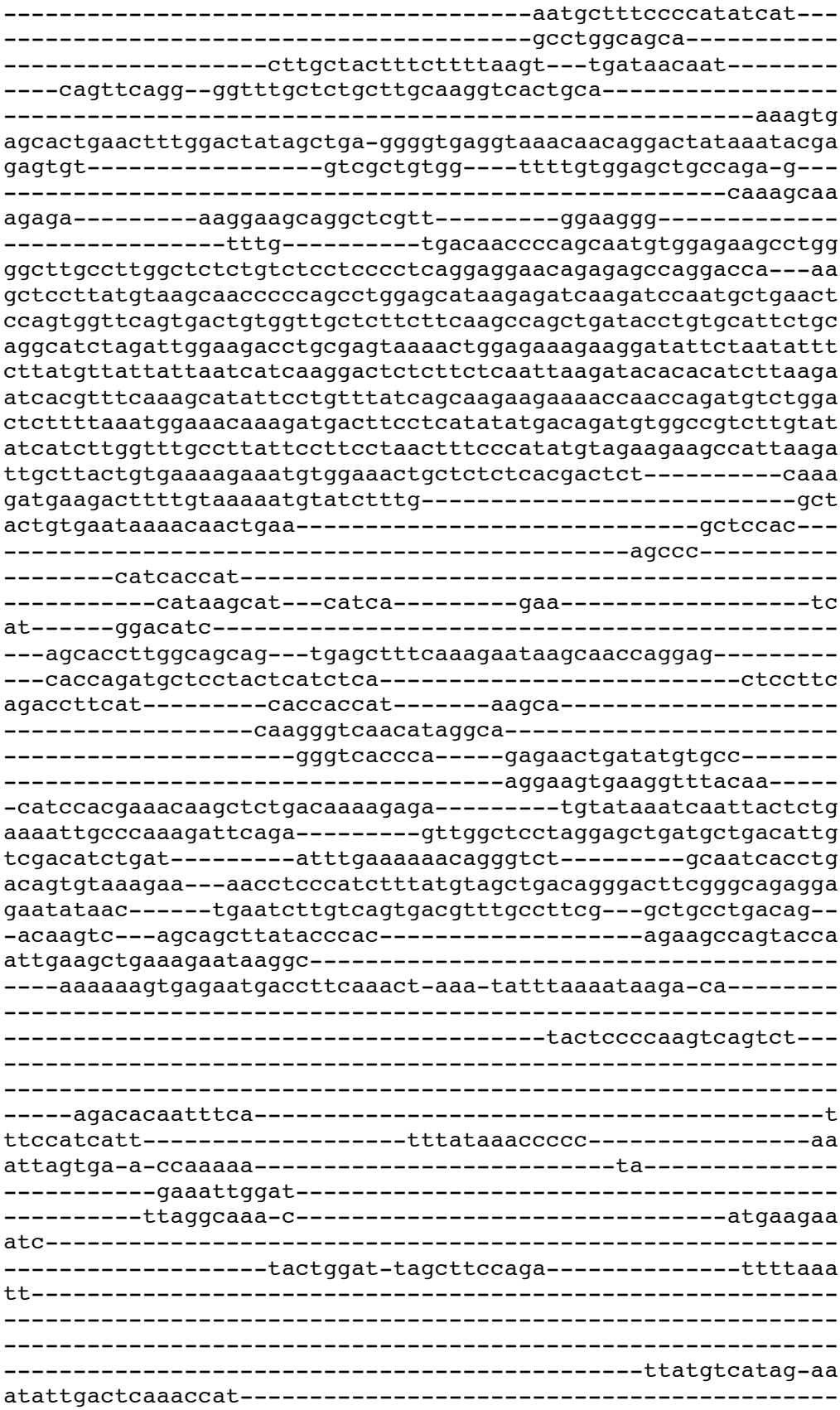
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>Aotus_nancymaae XM_012433842.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA



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plasma, 1 (SEPP1), mRNA
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>Panthera_tigris XM_007095428.2 PREDICTED: altaica selenoprotein P, plasma, 1
(SEPP1), transcript variant X2, mRNA
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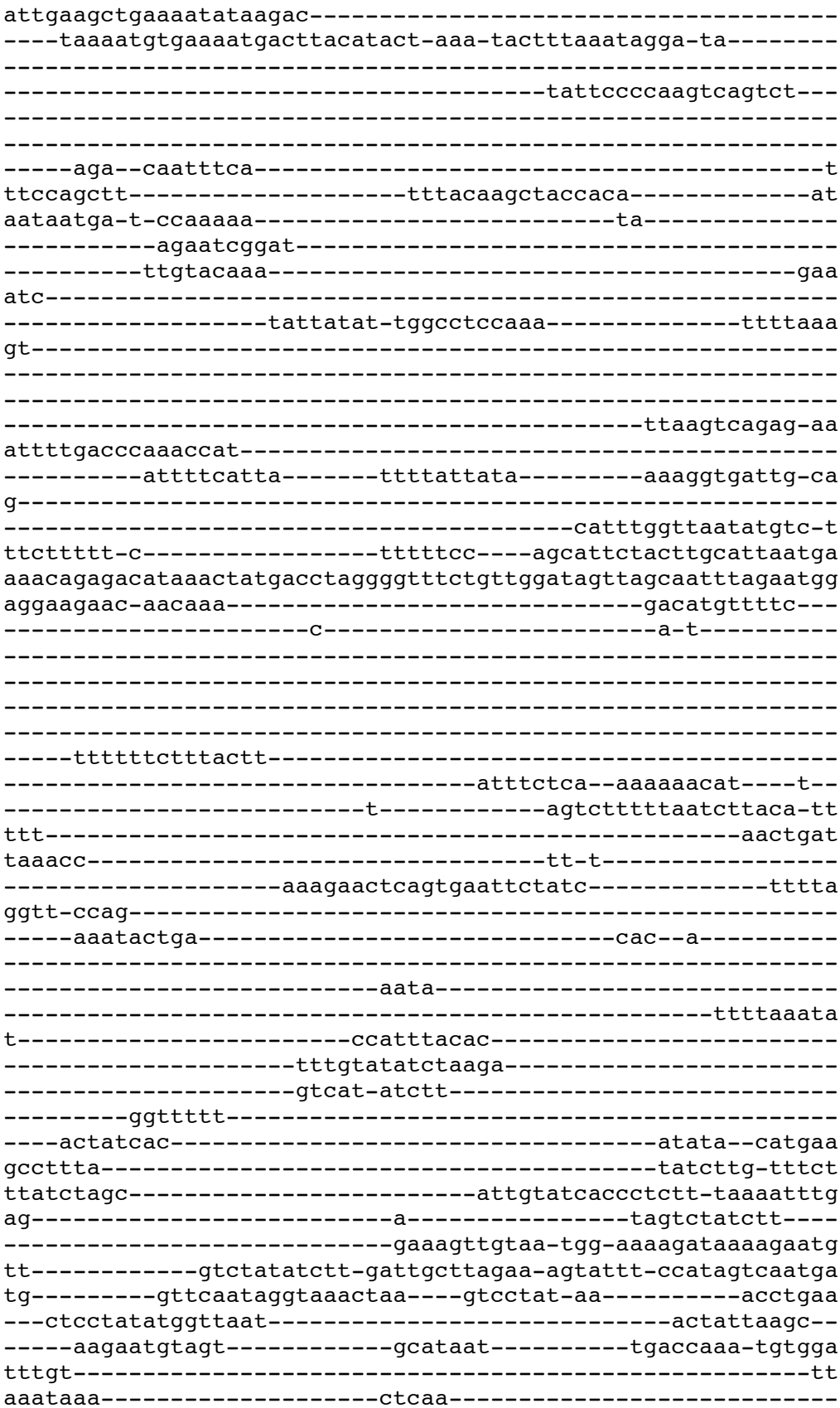
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>Panthera_pardus XM_019464277.1 PREDICTED: selenoprotein P (SELENOP), transcript
variant X1, mRNA
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variant X1, mRNA
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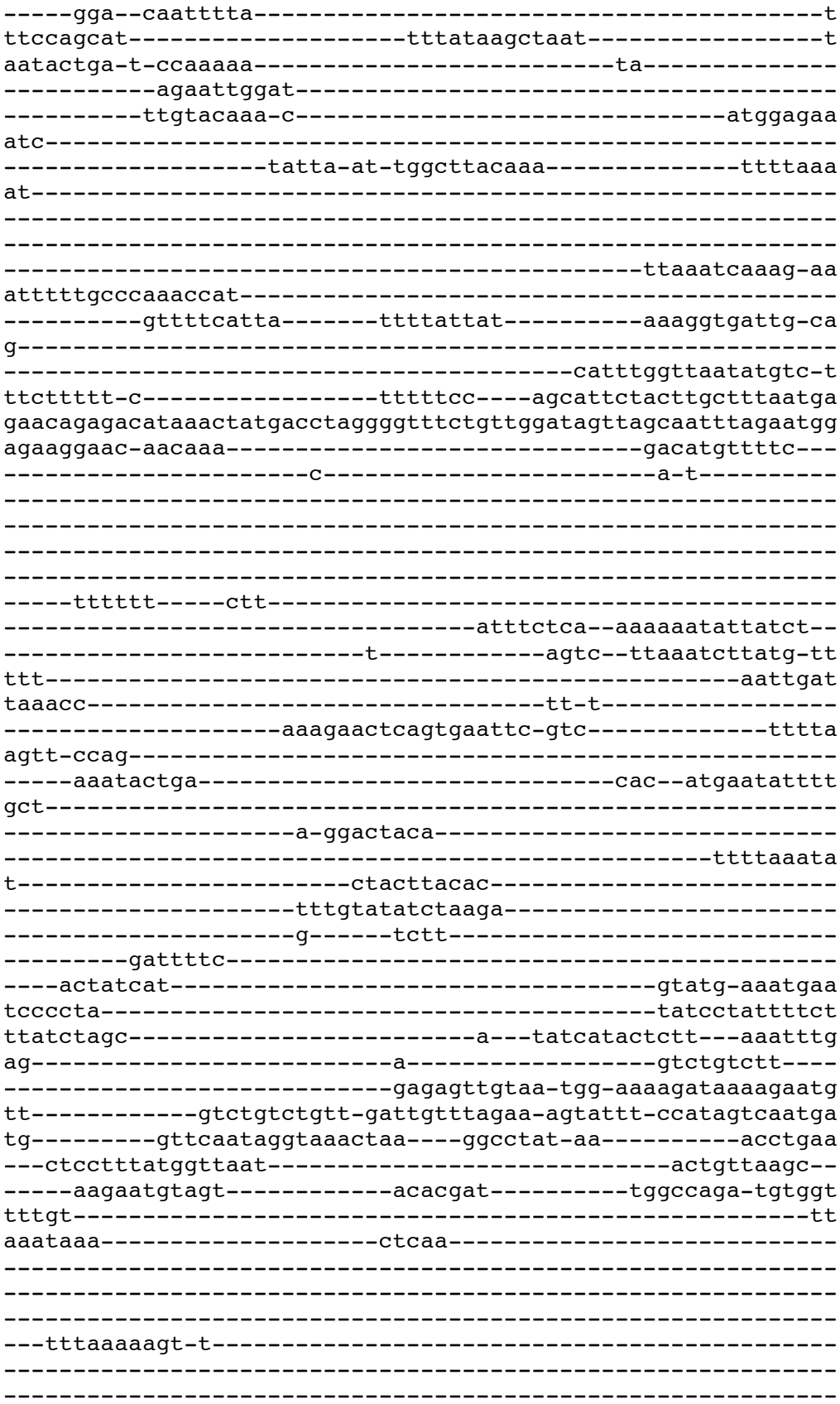
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>Canis_lupus NM_001115118.1 familiaris selenoprotein P (SELENOP), mRNA
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>Mustela_putorius XM_004737944.2 PREDICTED: furo selenoprotein P, plasma, 1 (SEPP1), transcript variant X1, mRNA

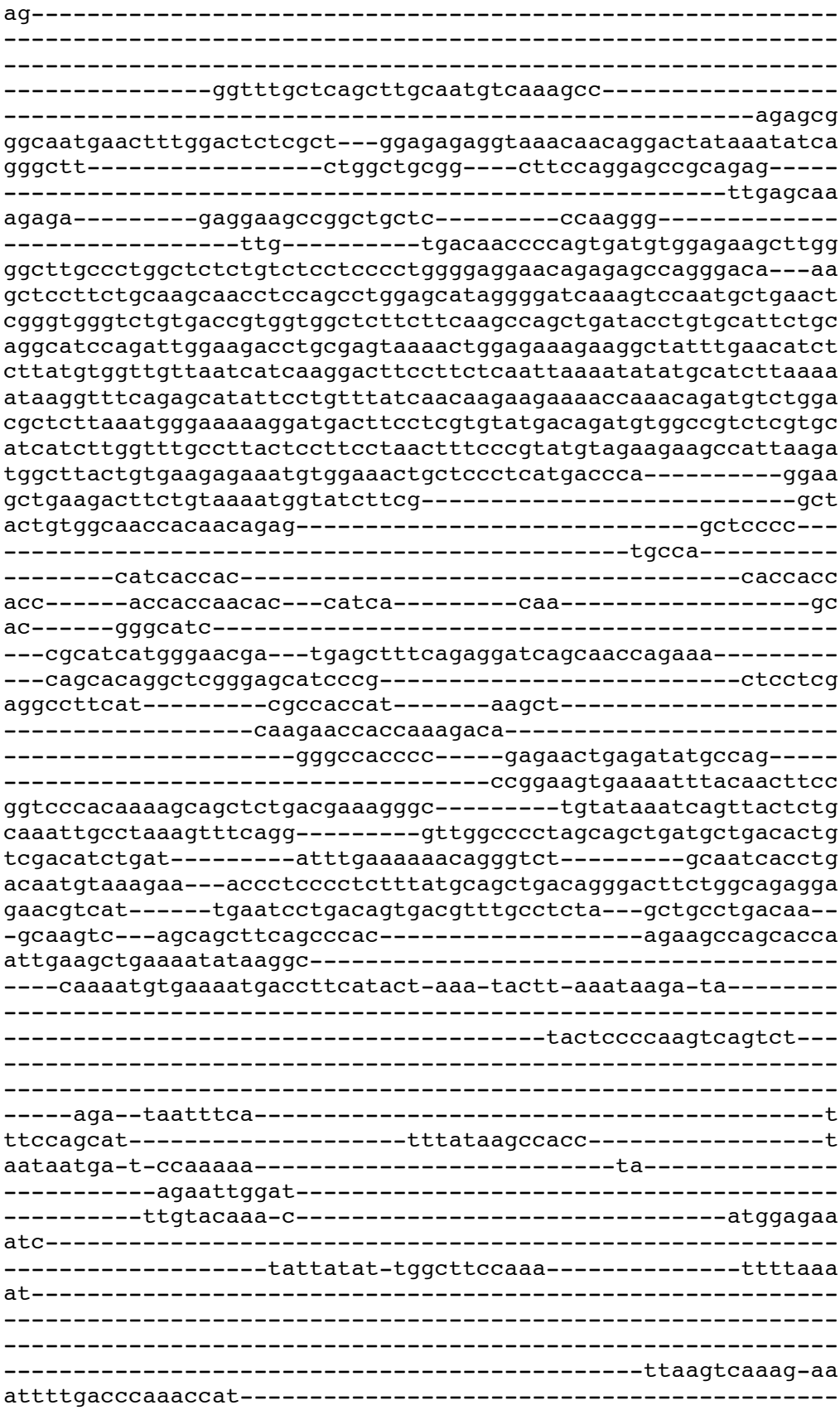
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>Ailuropoda_melanoleuca XM_002921714.2 PREDICTED: selenoprotein P (SELENOP),
mRNA
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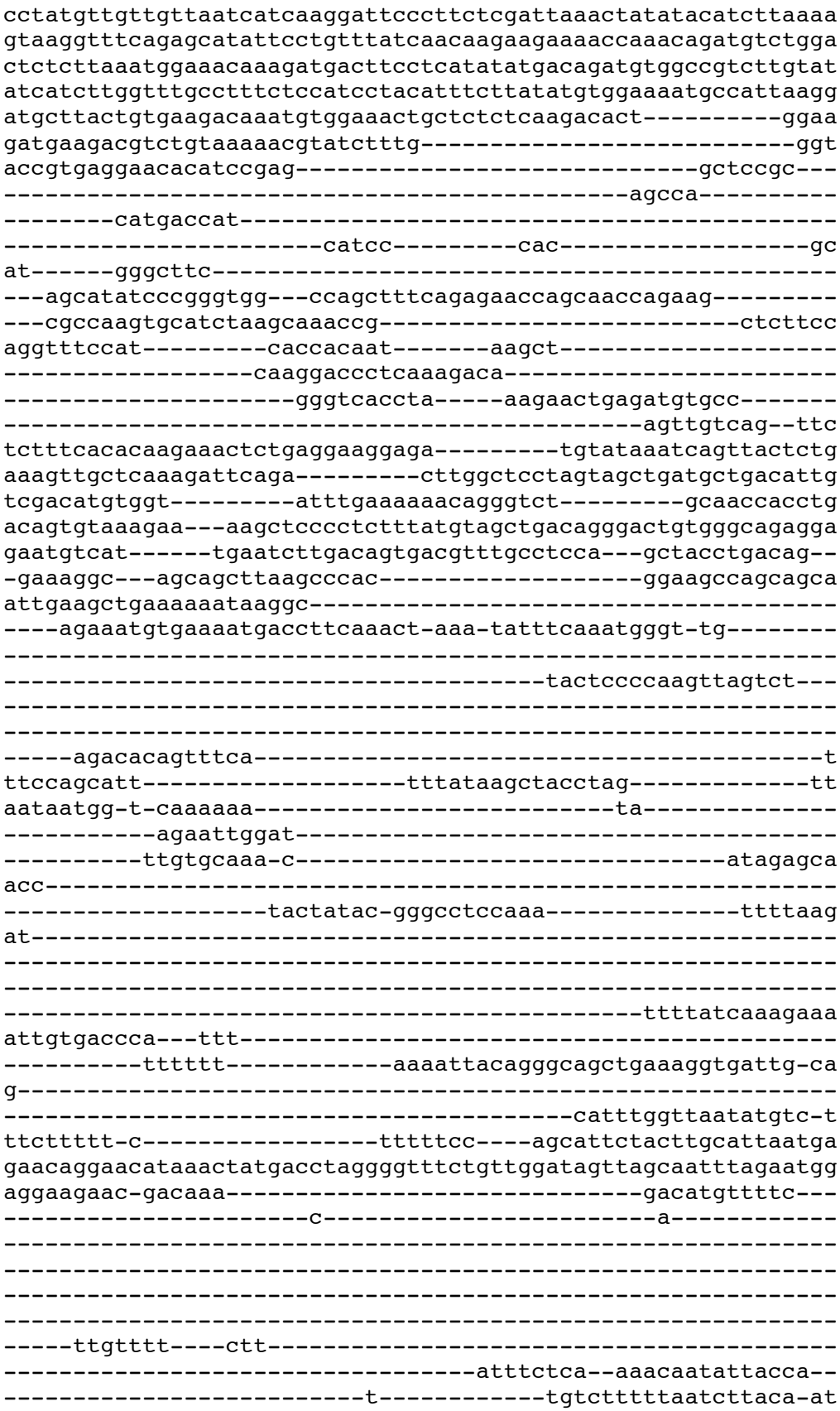
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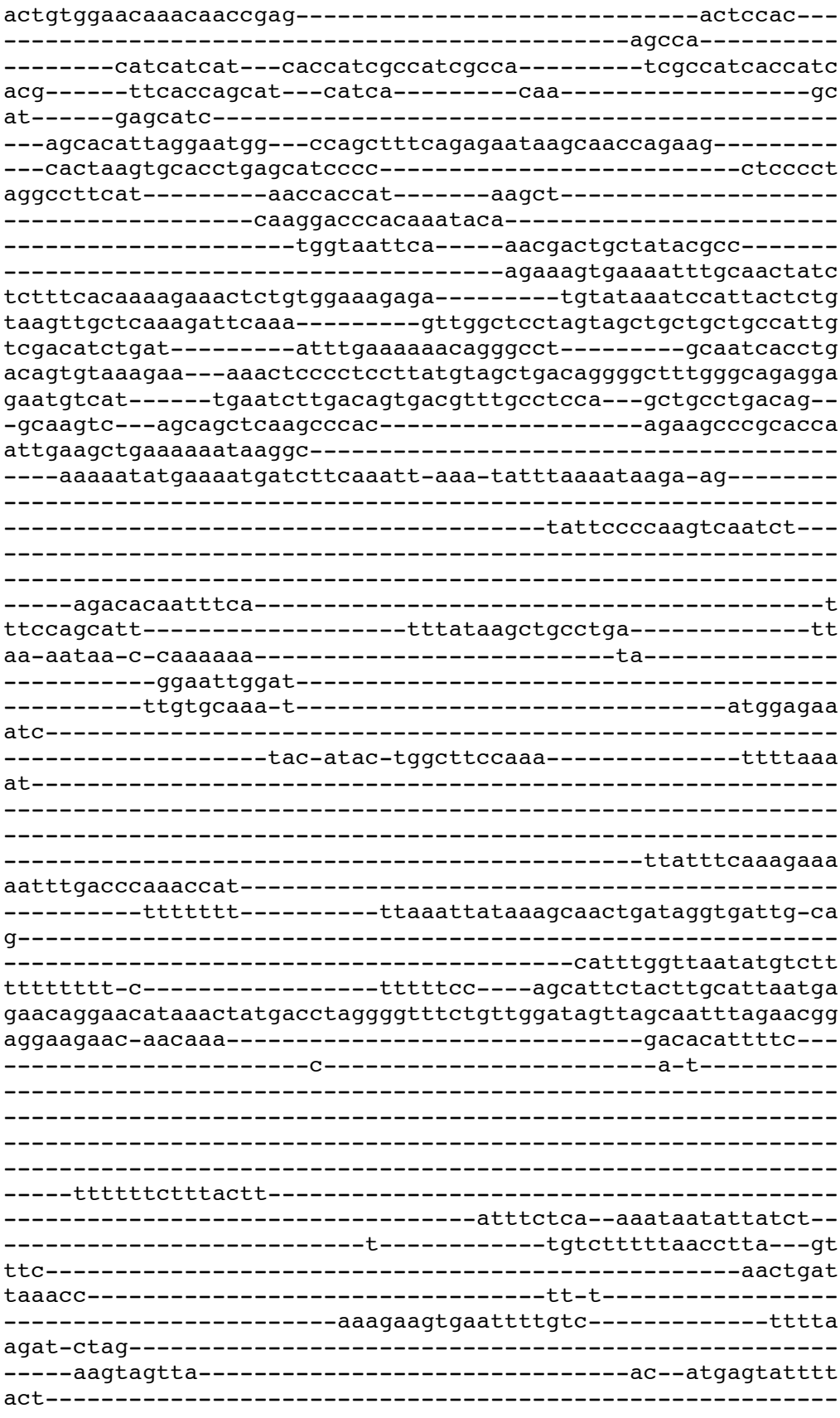
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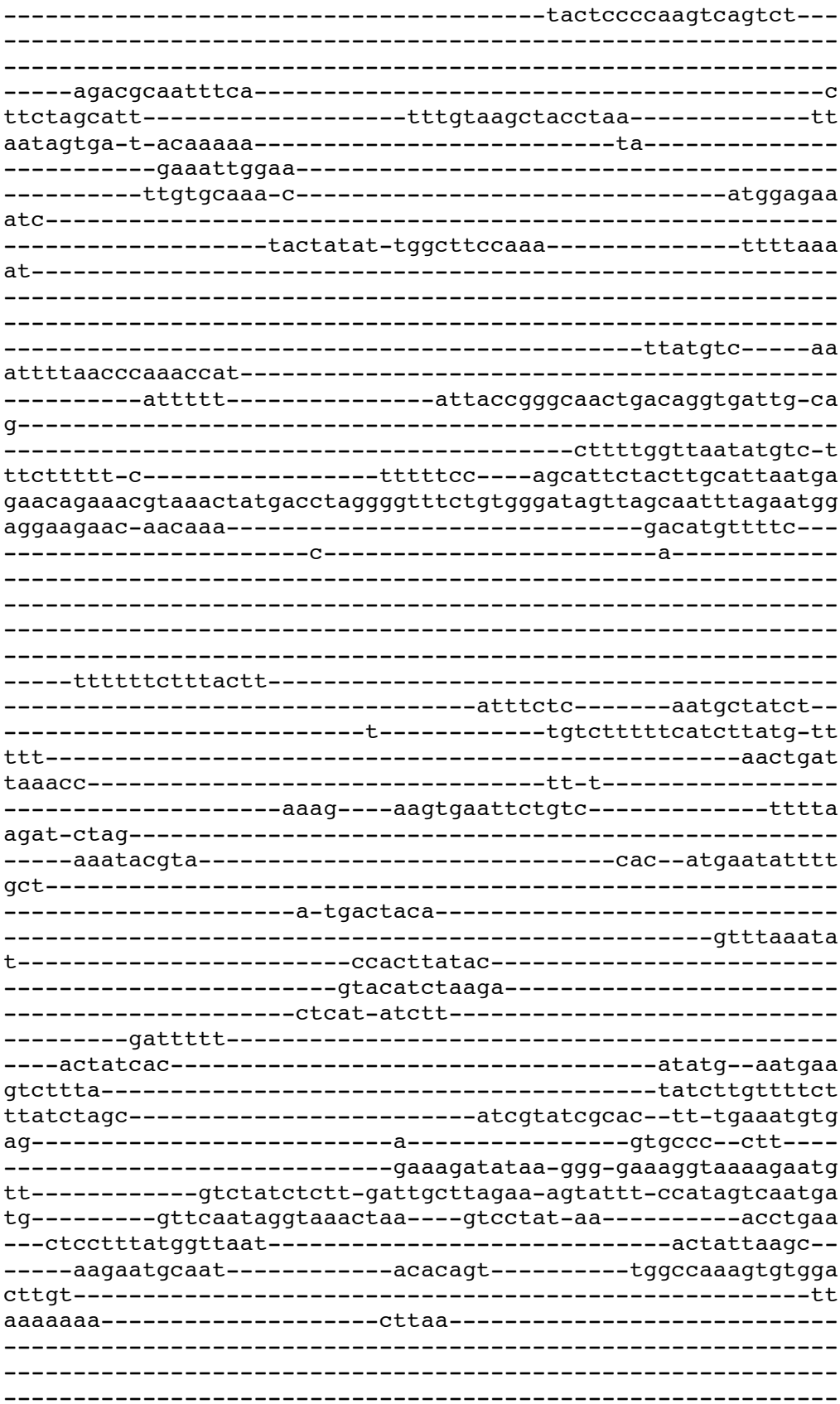
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(SEPP1), mRNA
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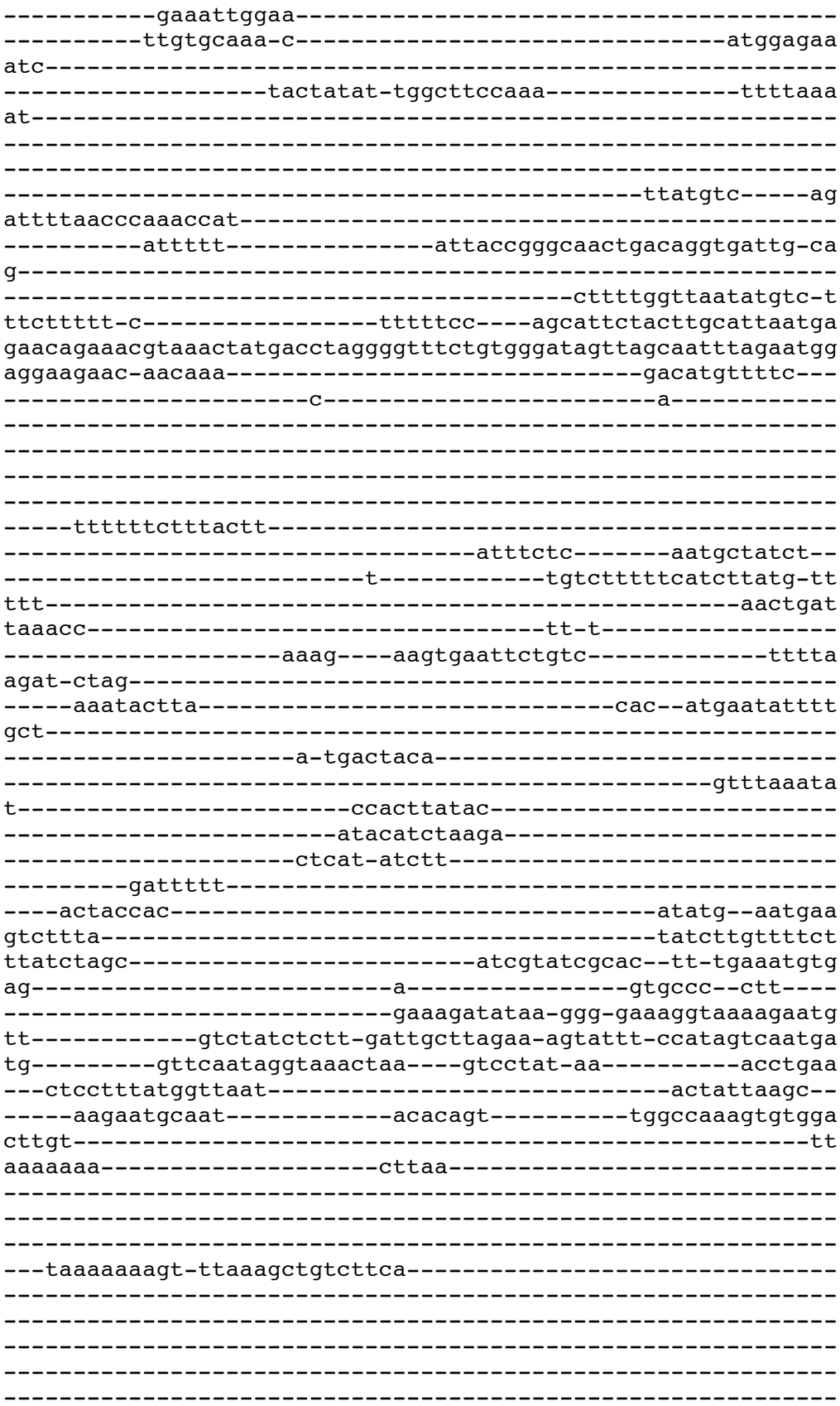
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>Equus_przewalskii XM_008524571.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA

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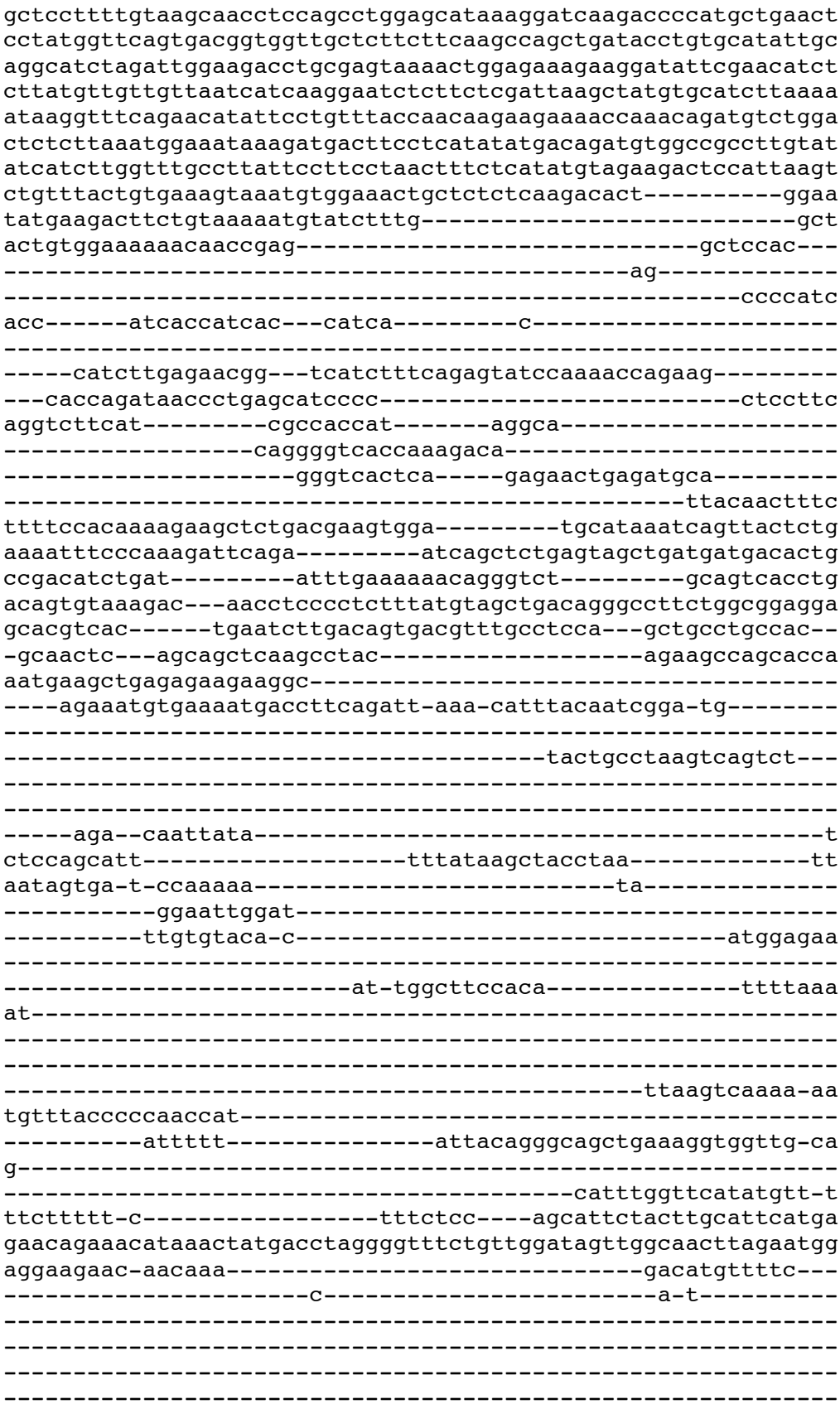


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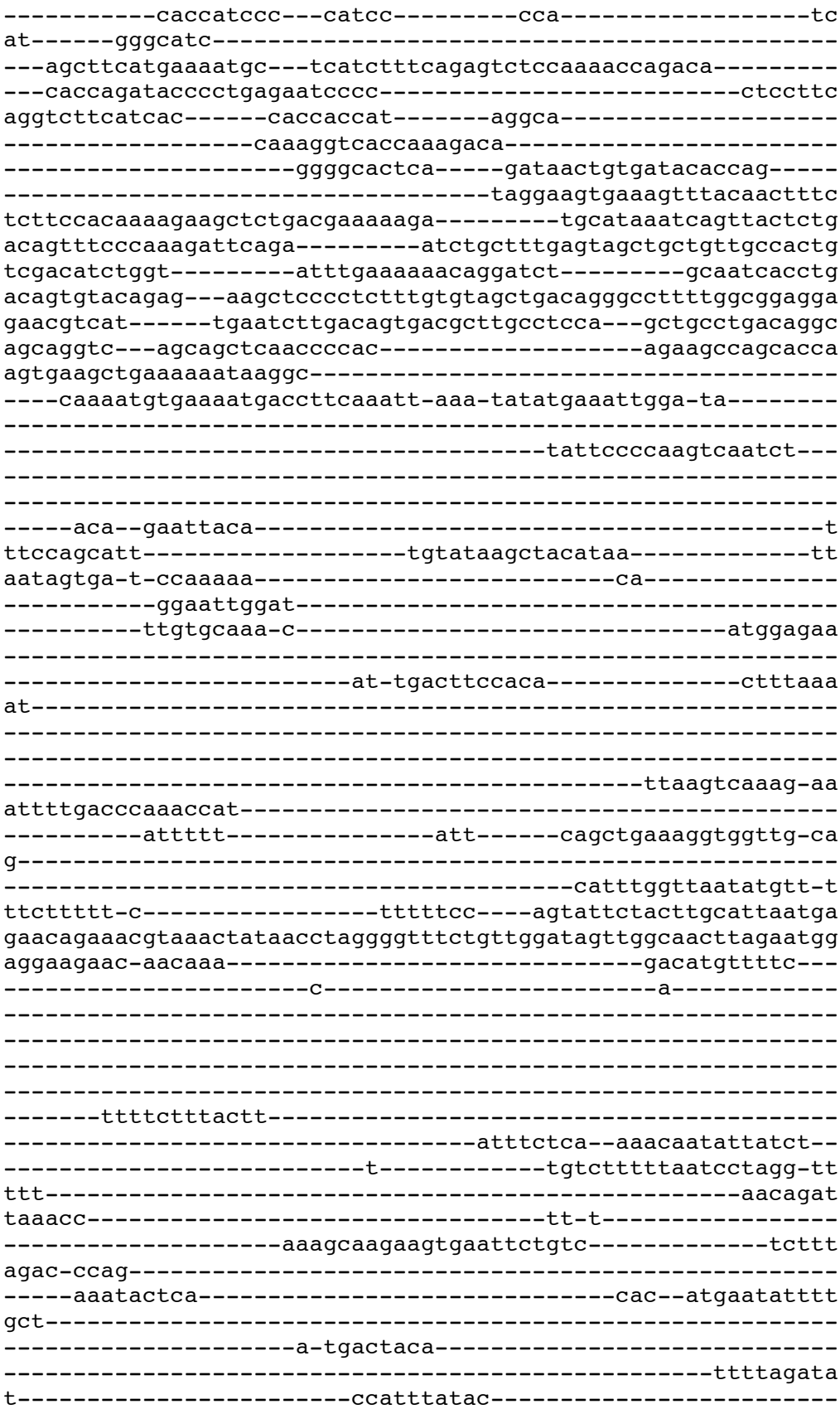
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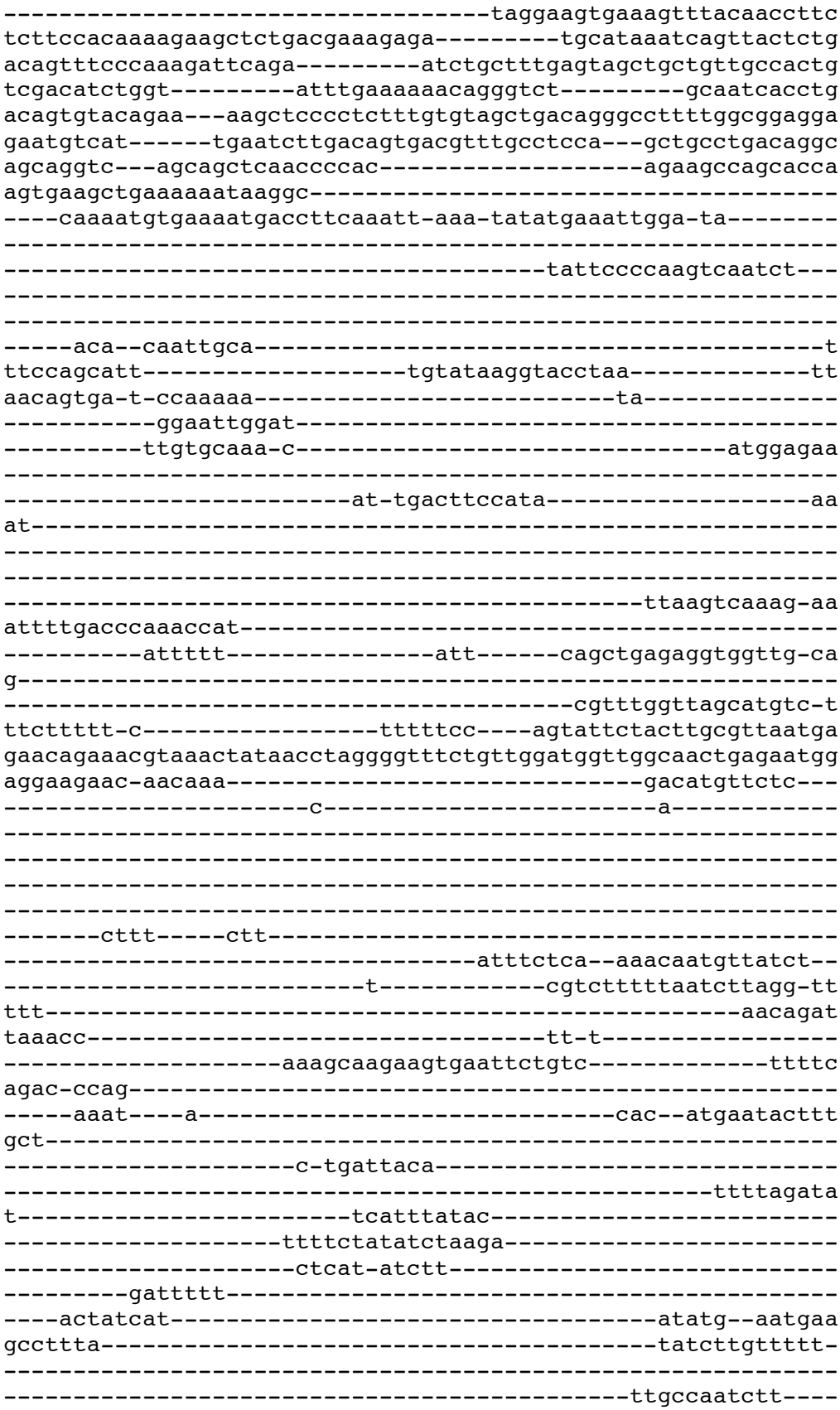
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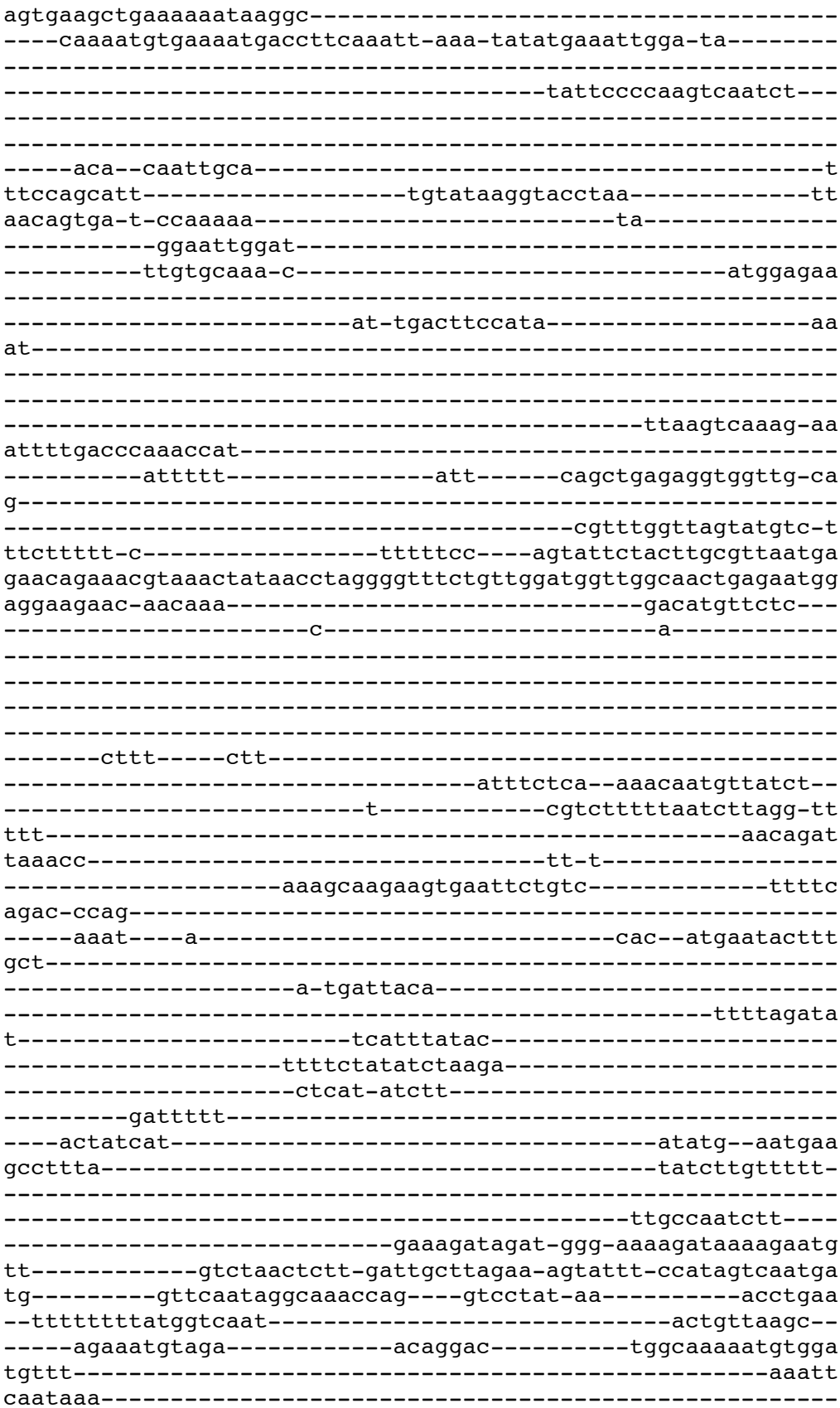
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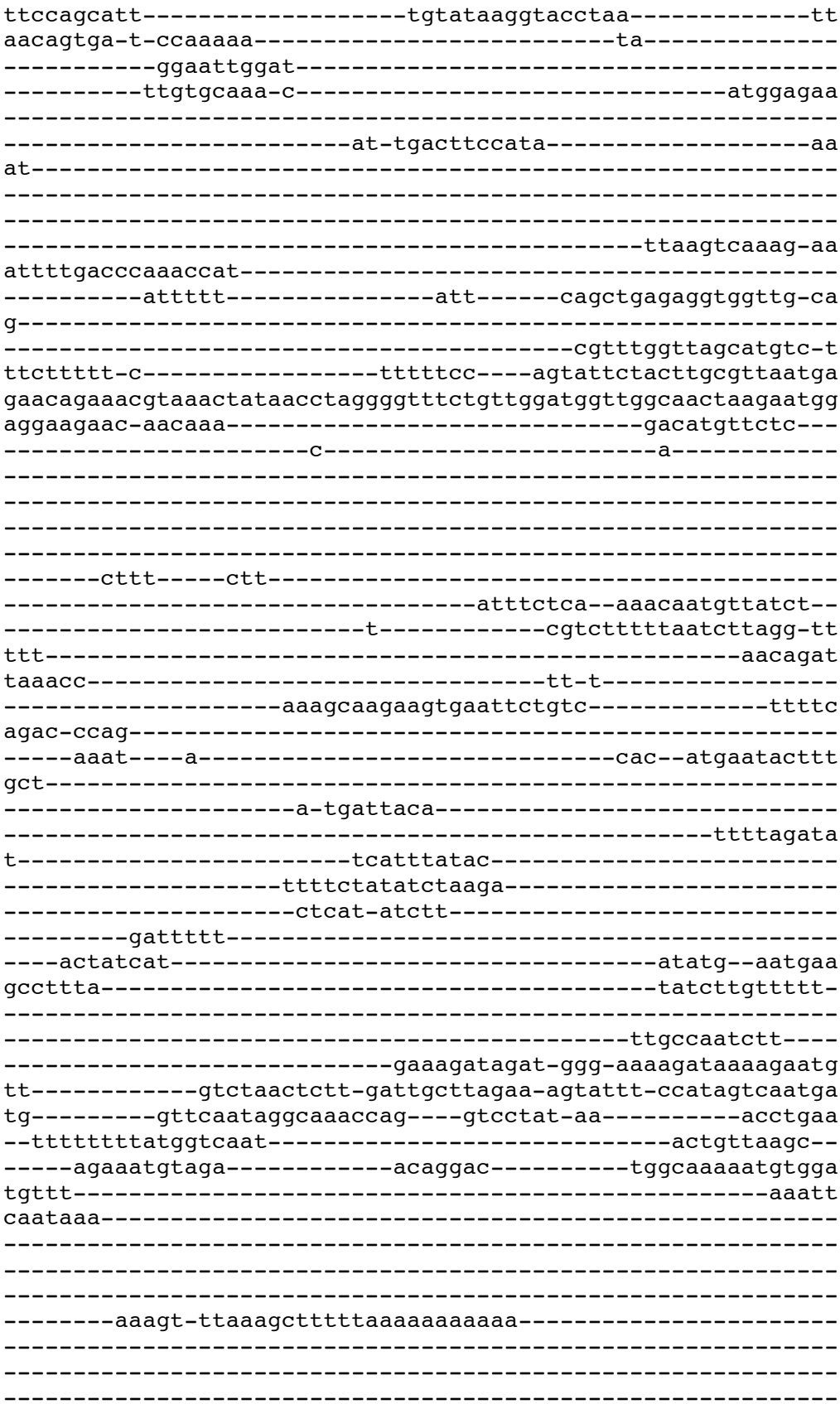
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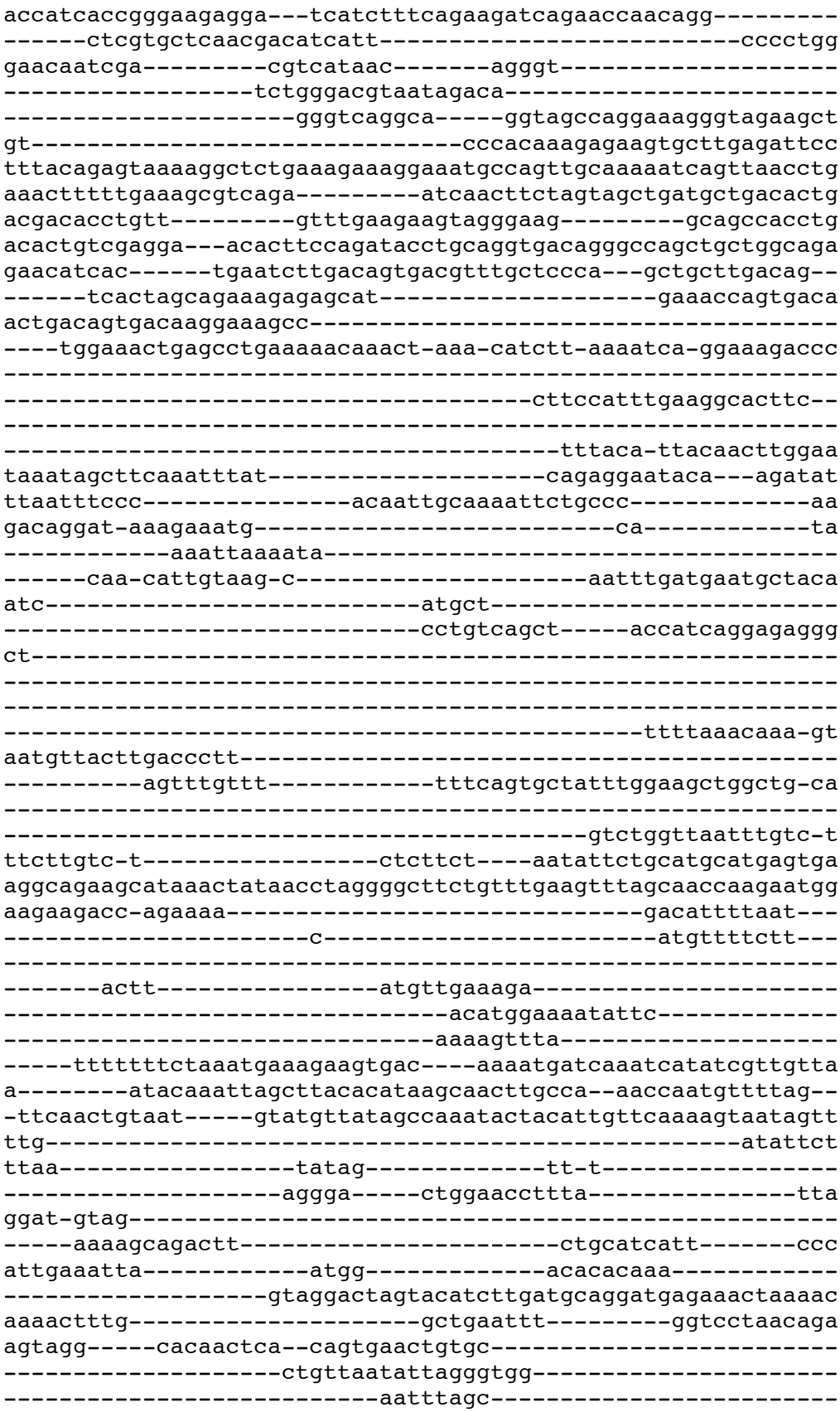
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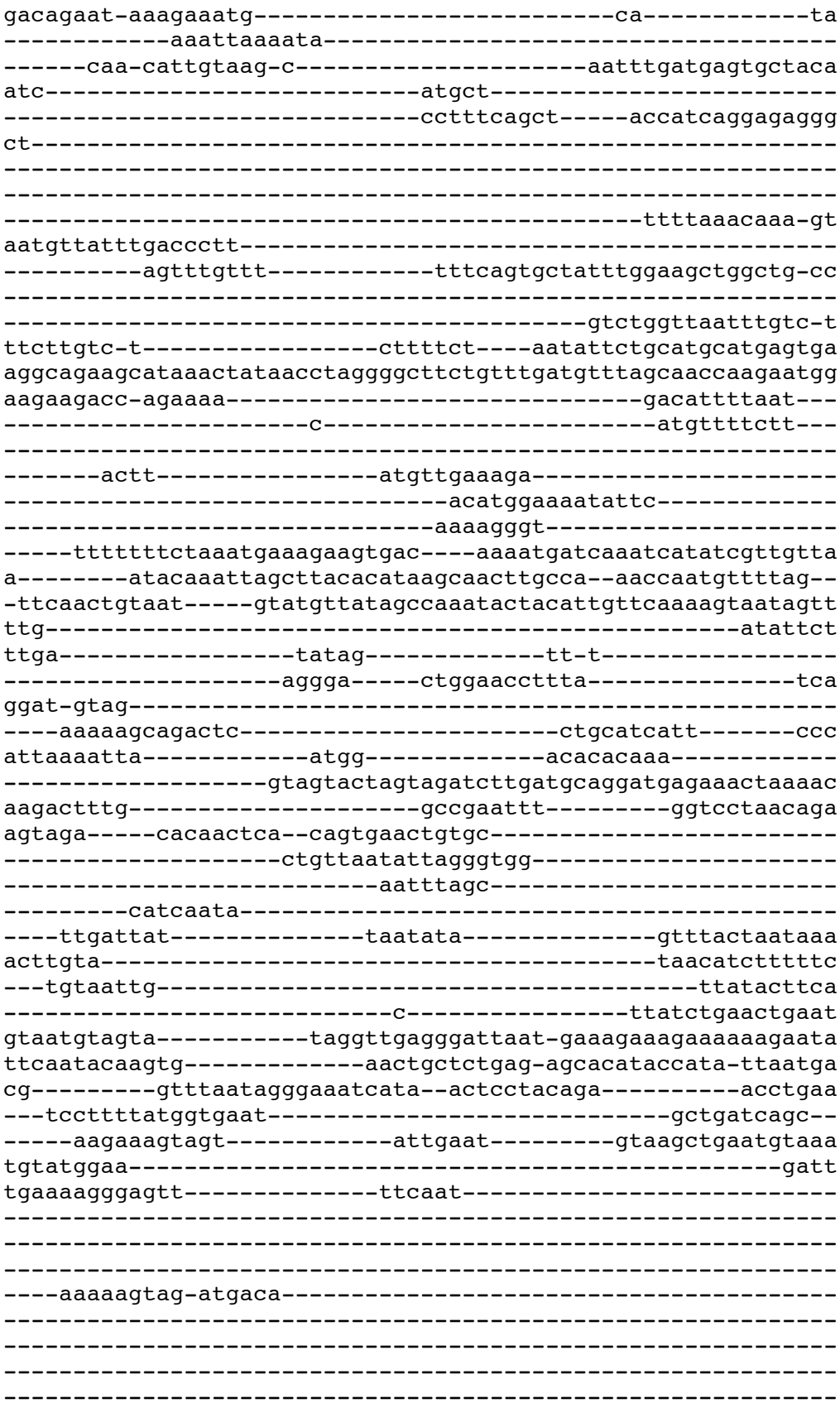
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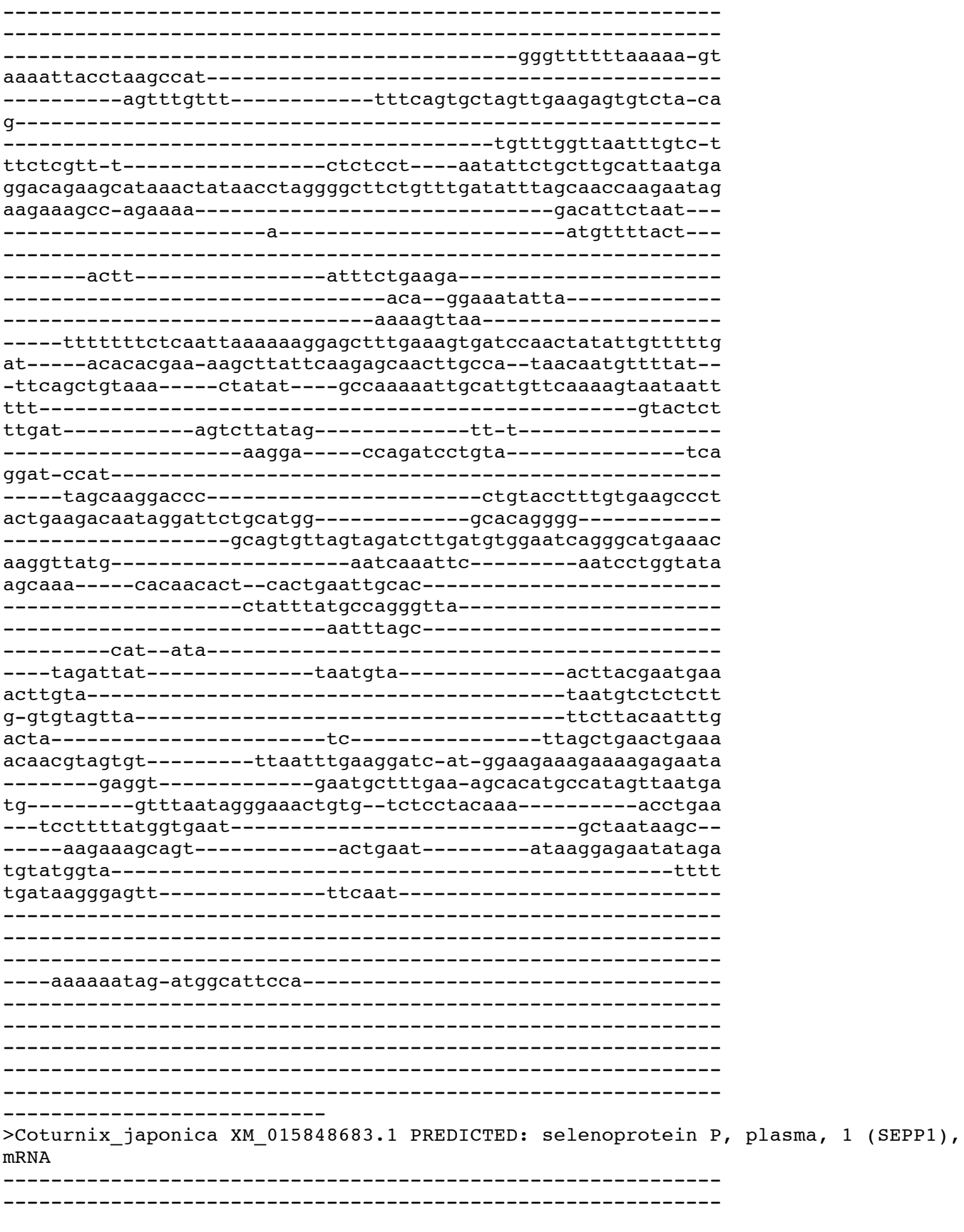
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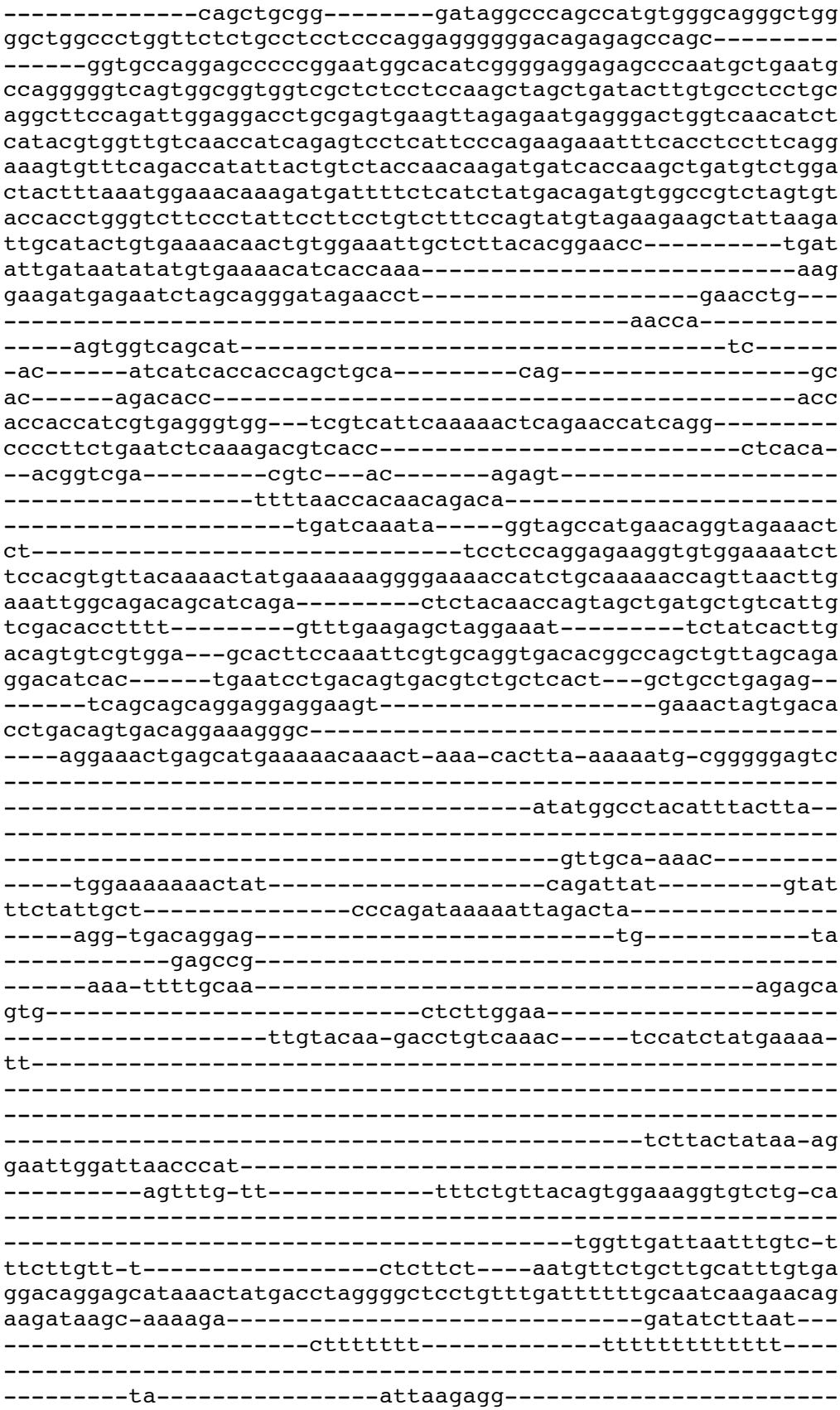


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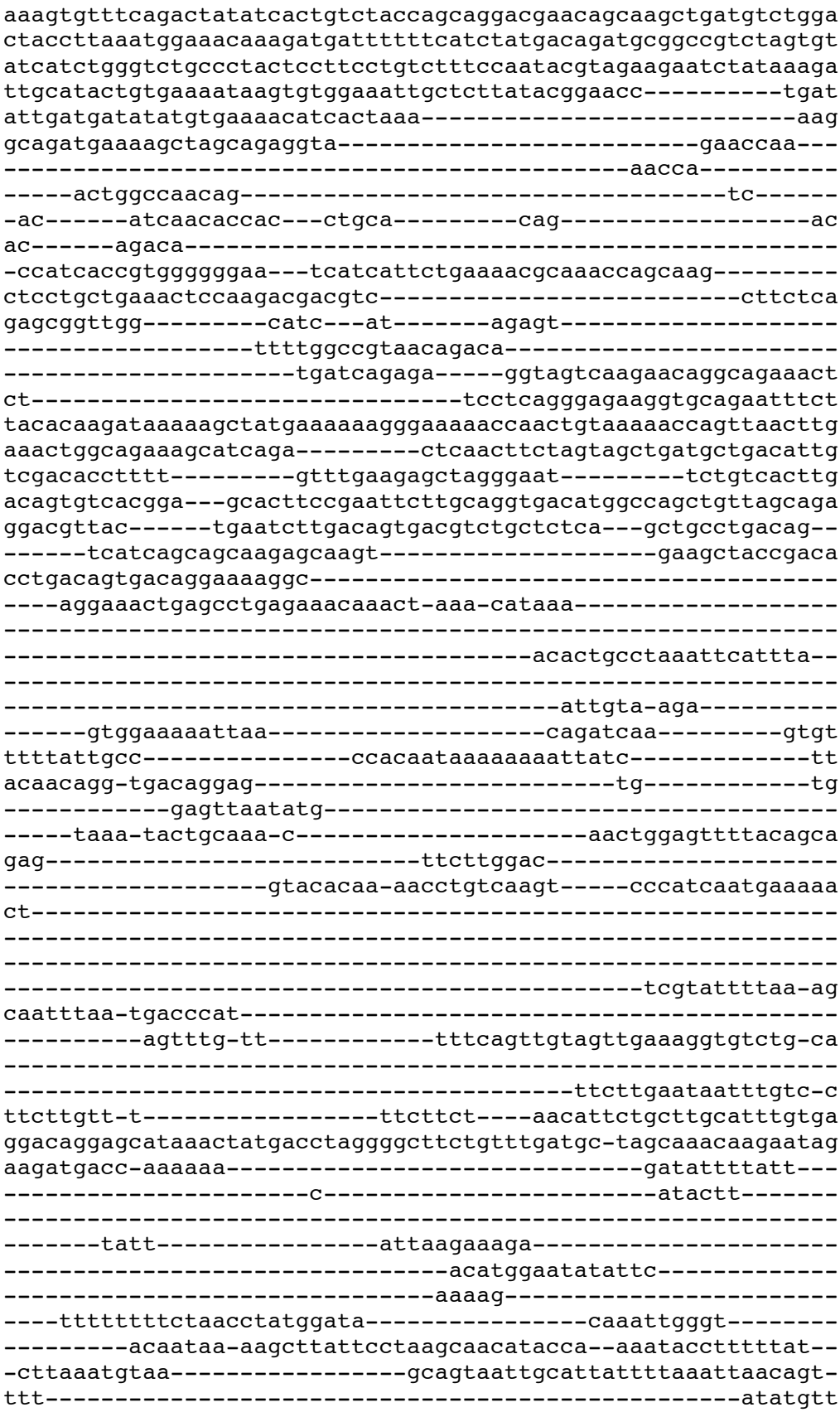




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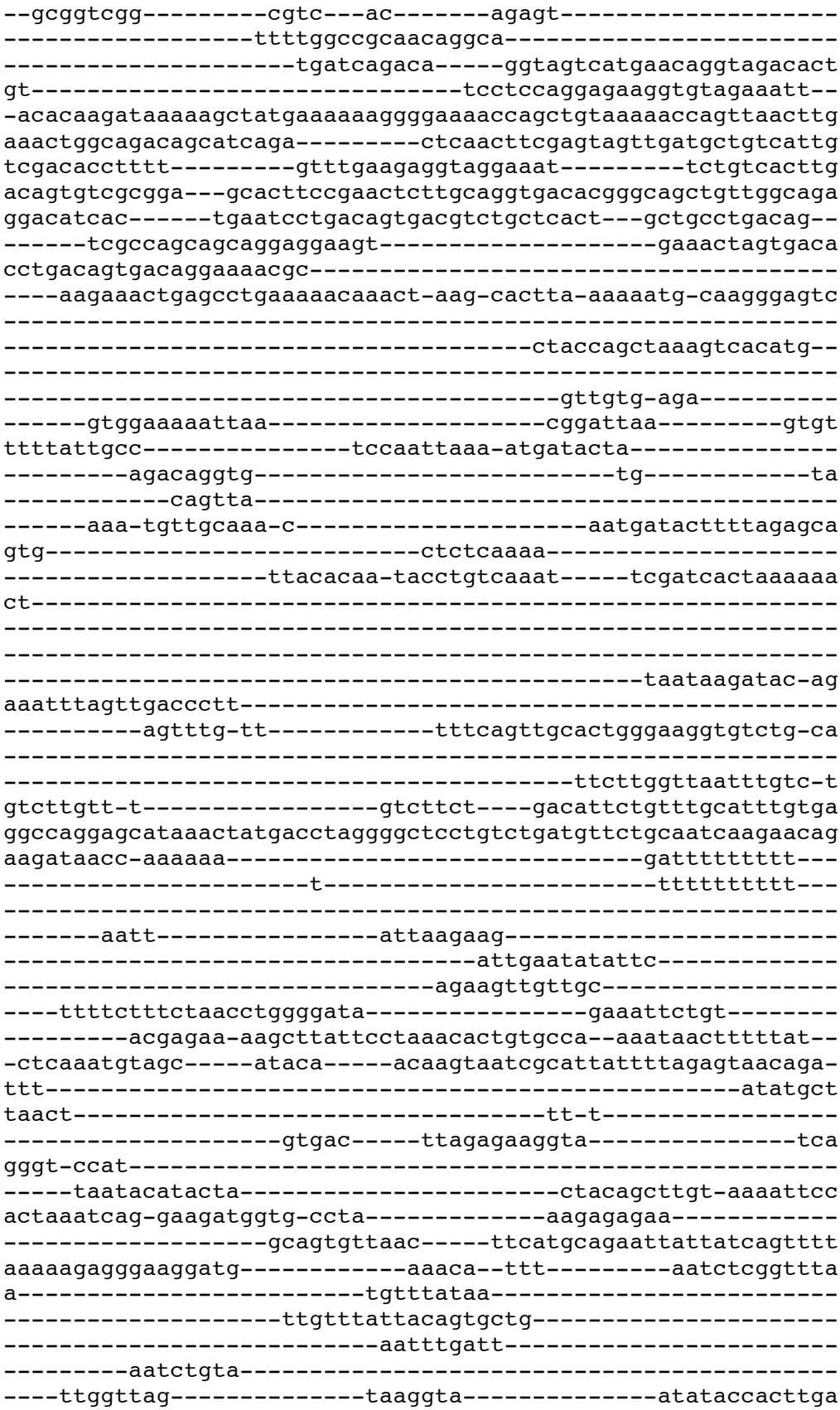
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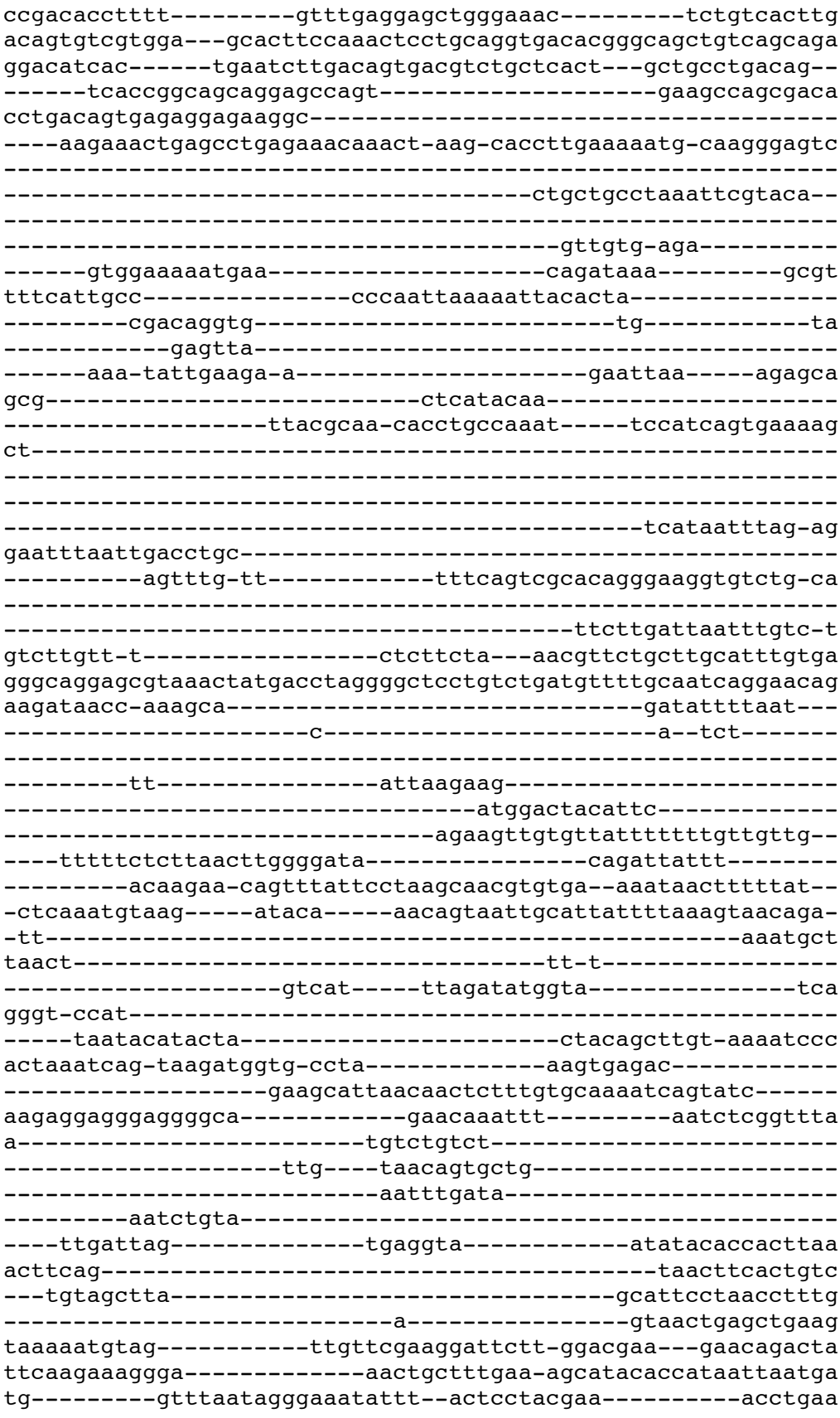
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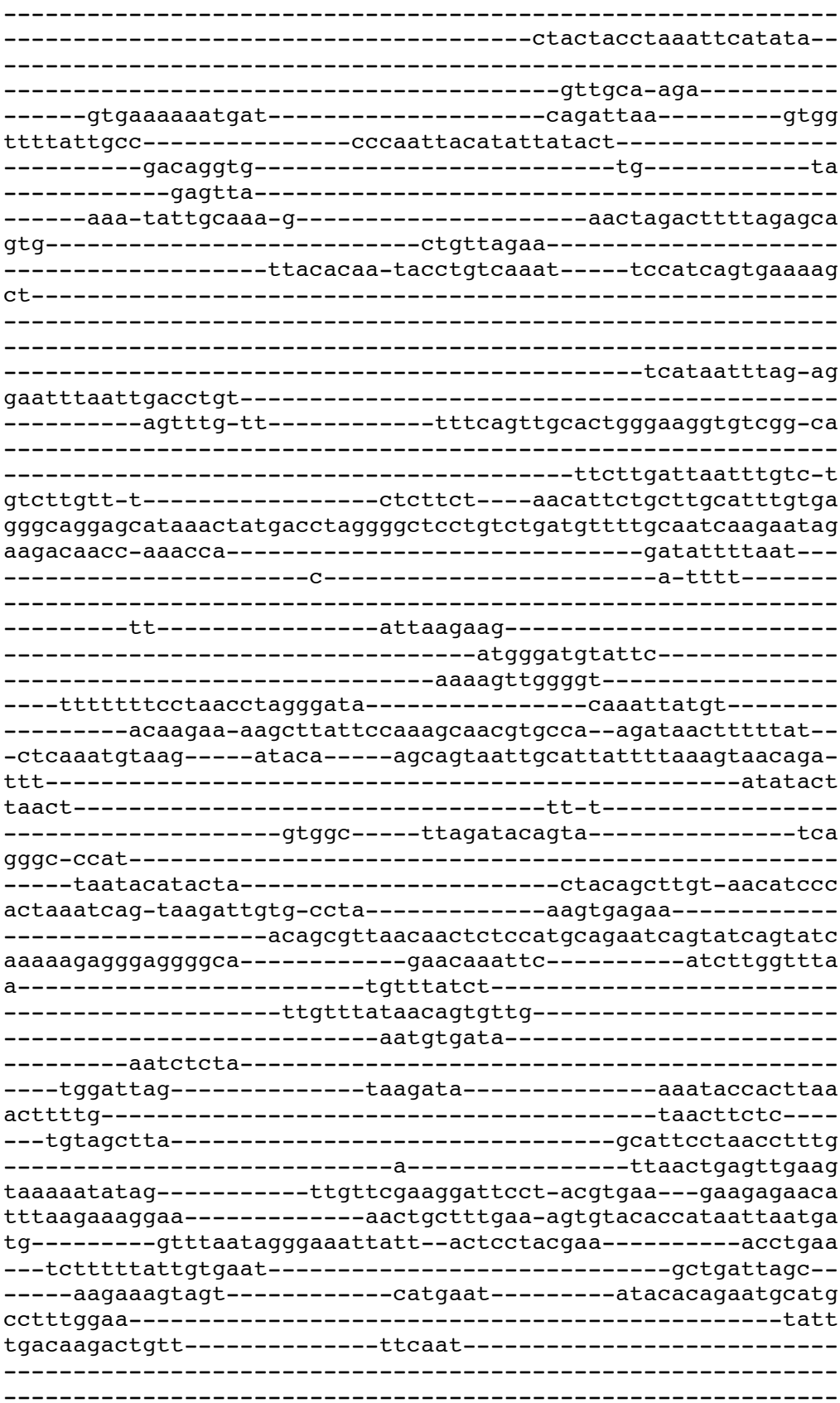
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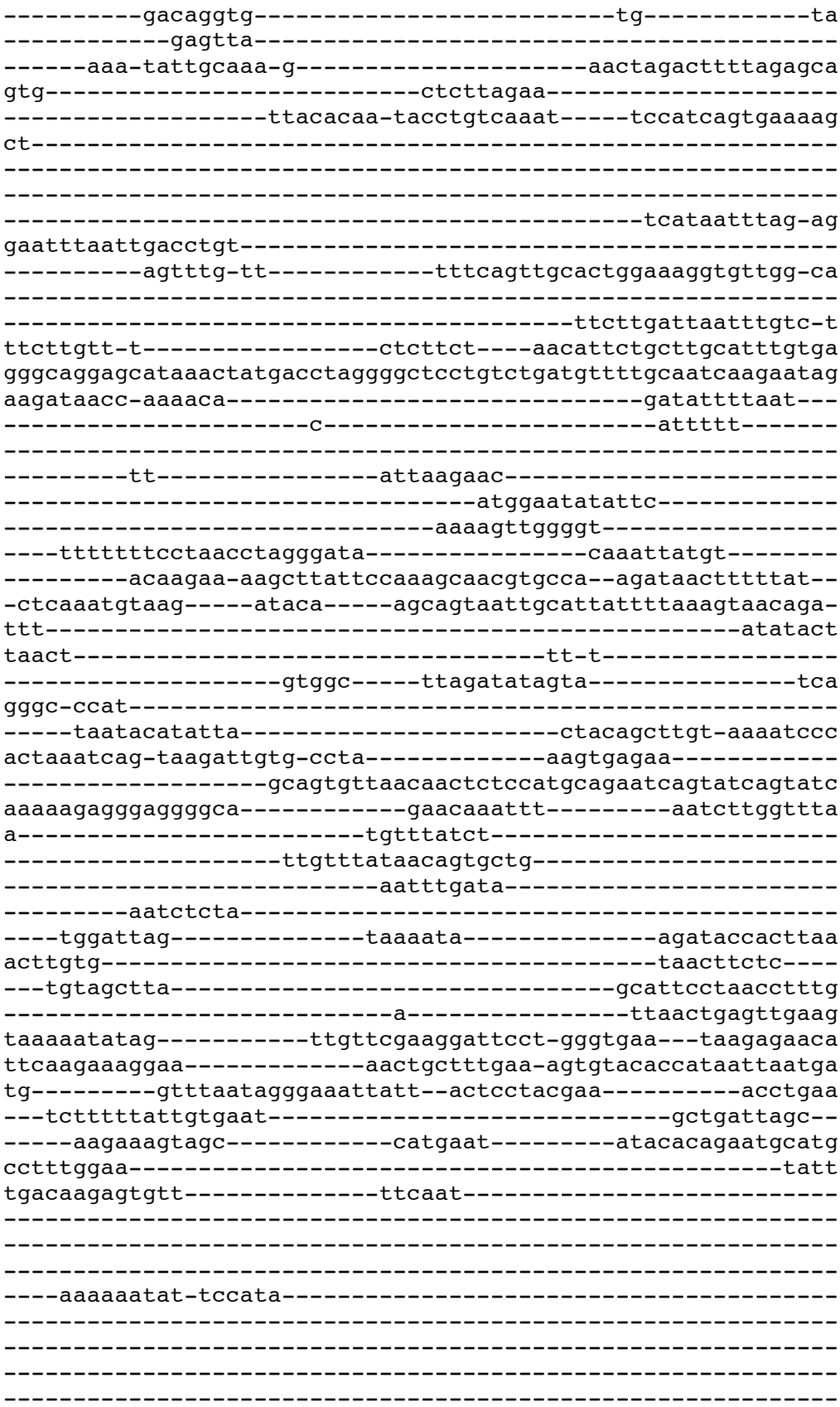
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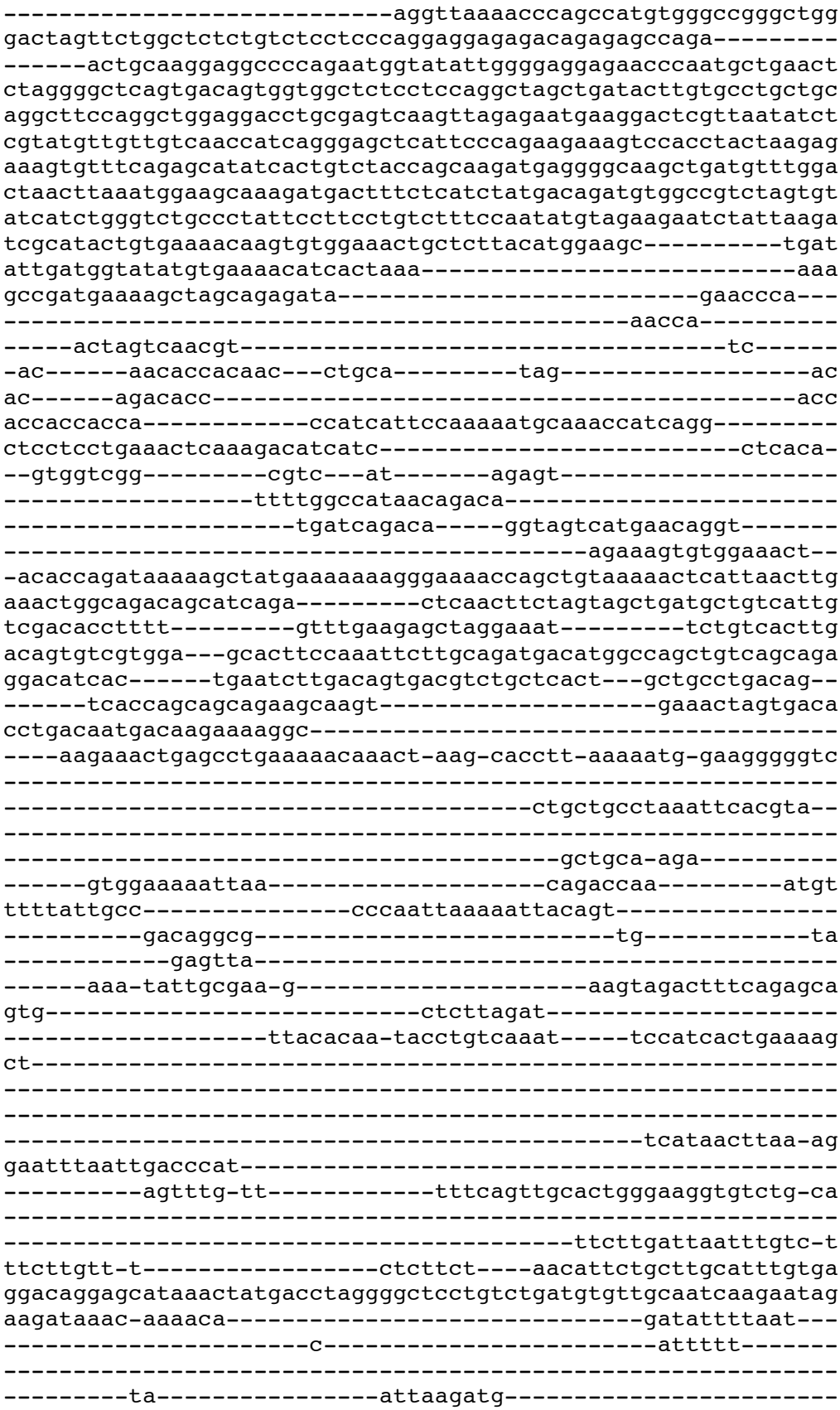


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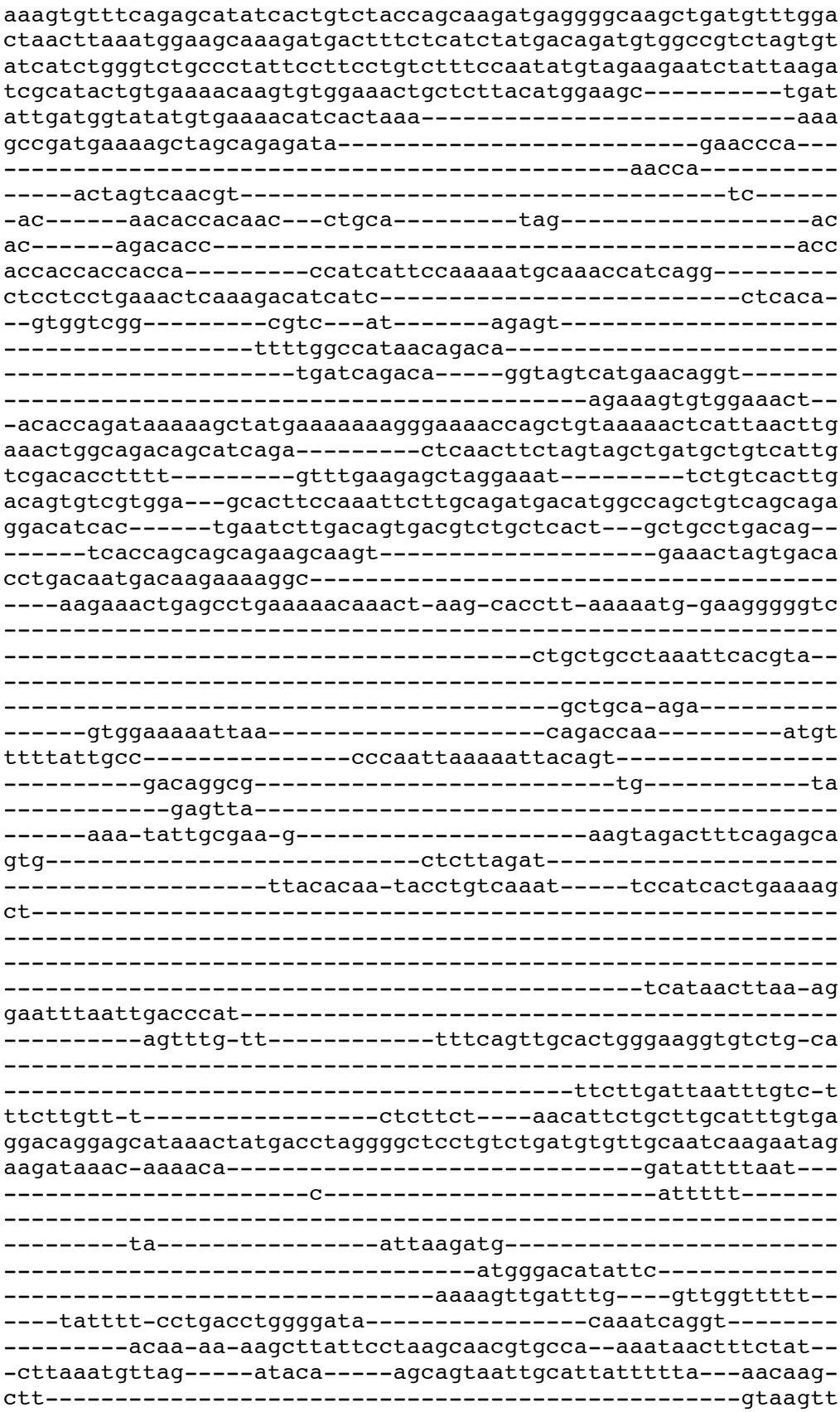
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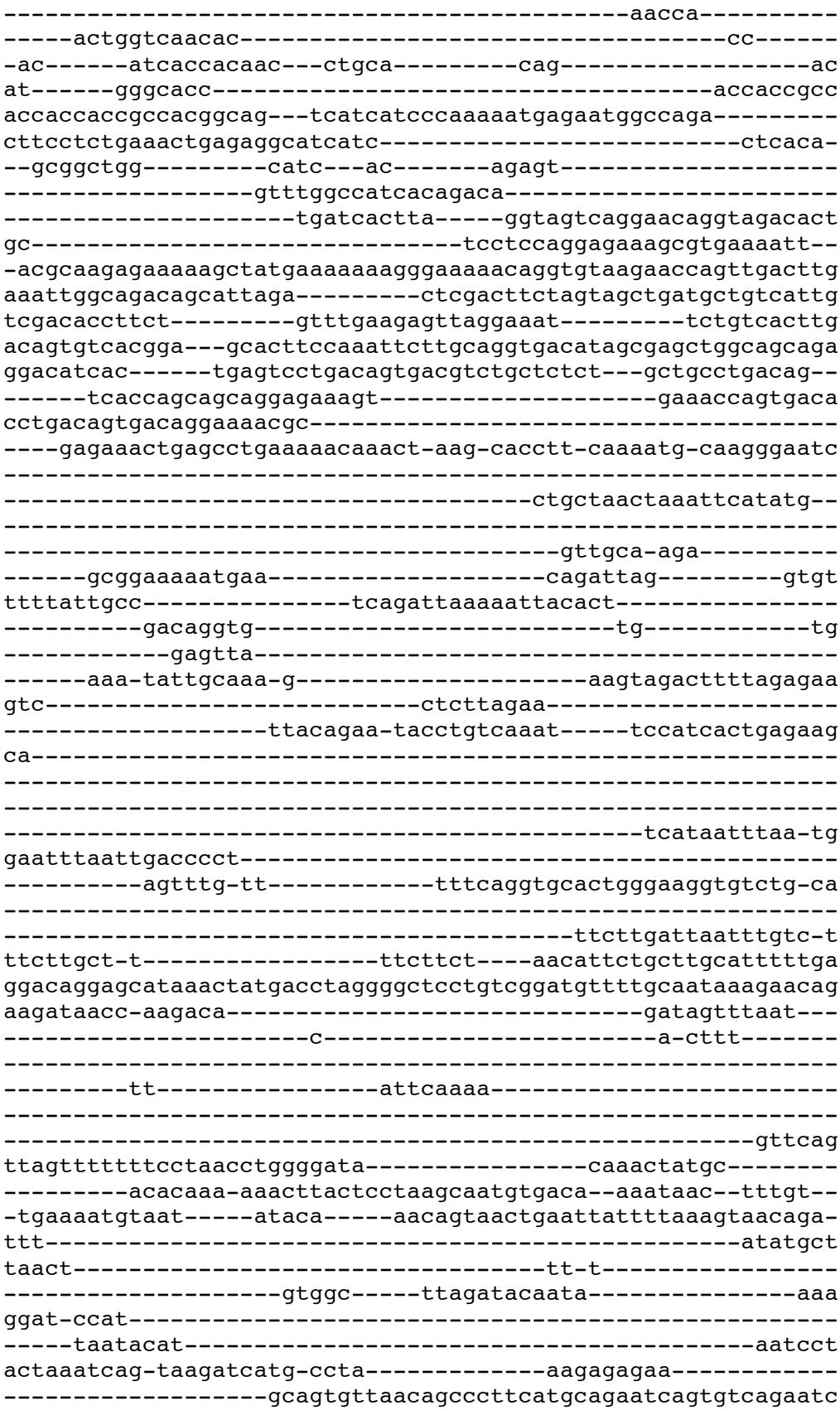
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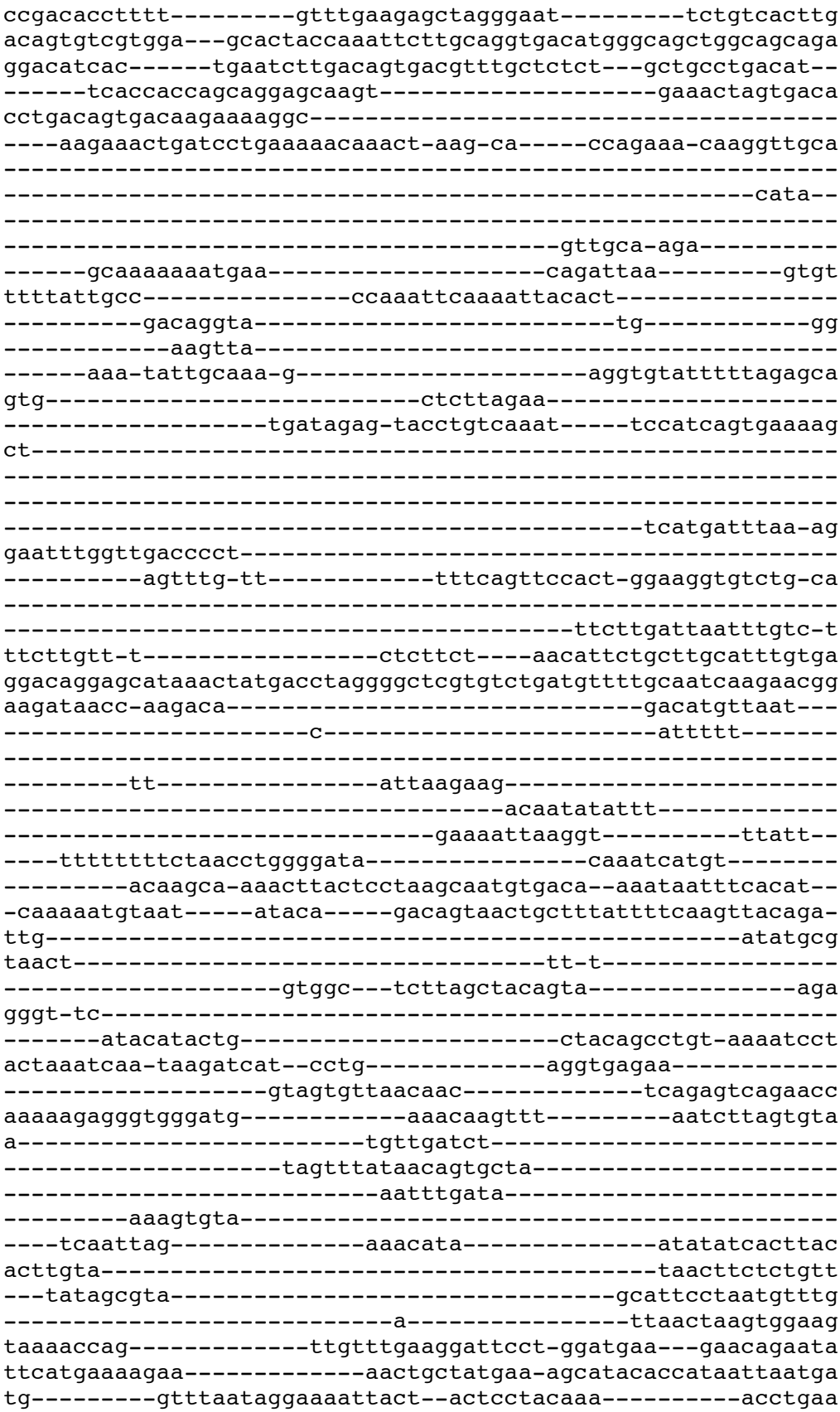
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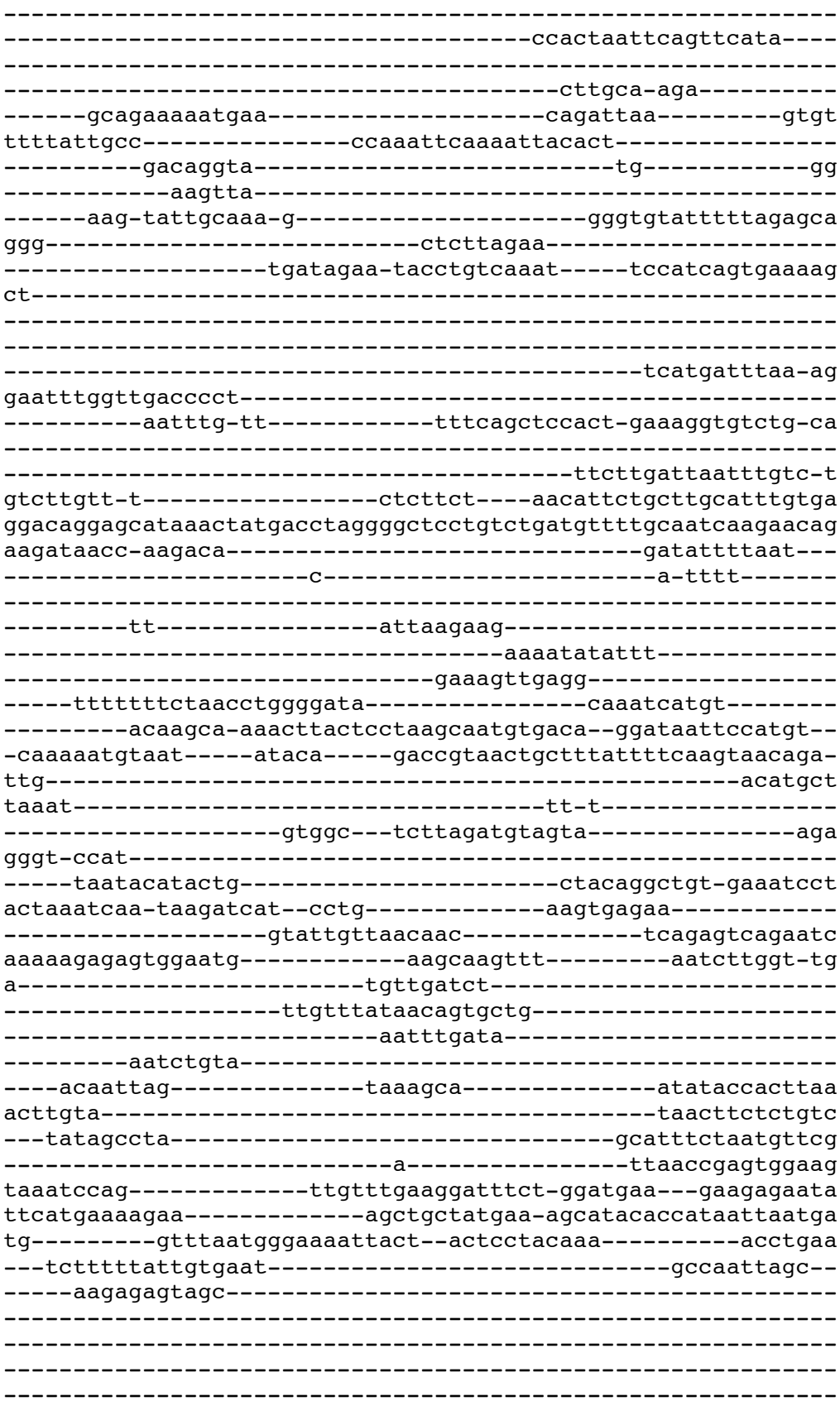
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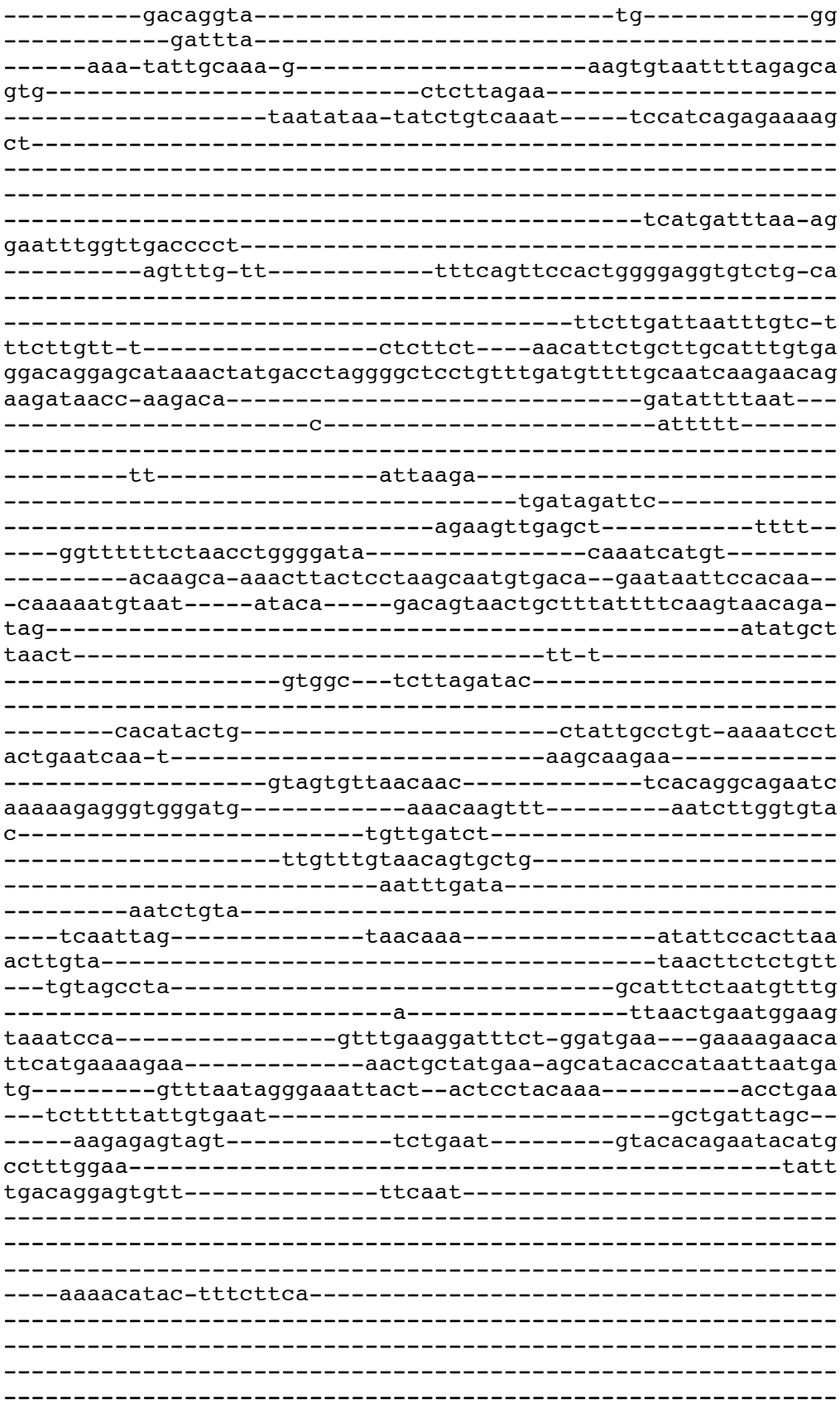
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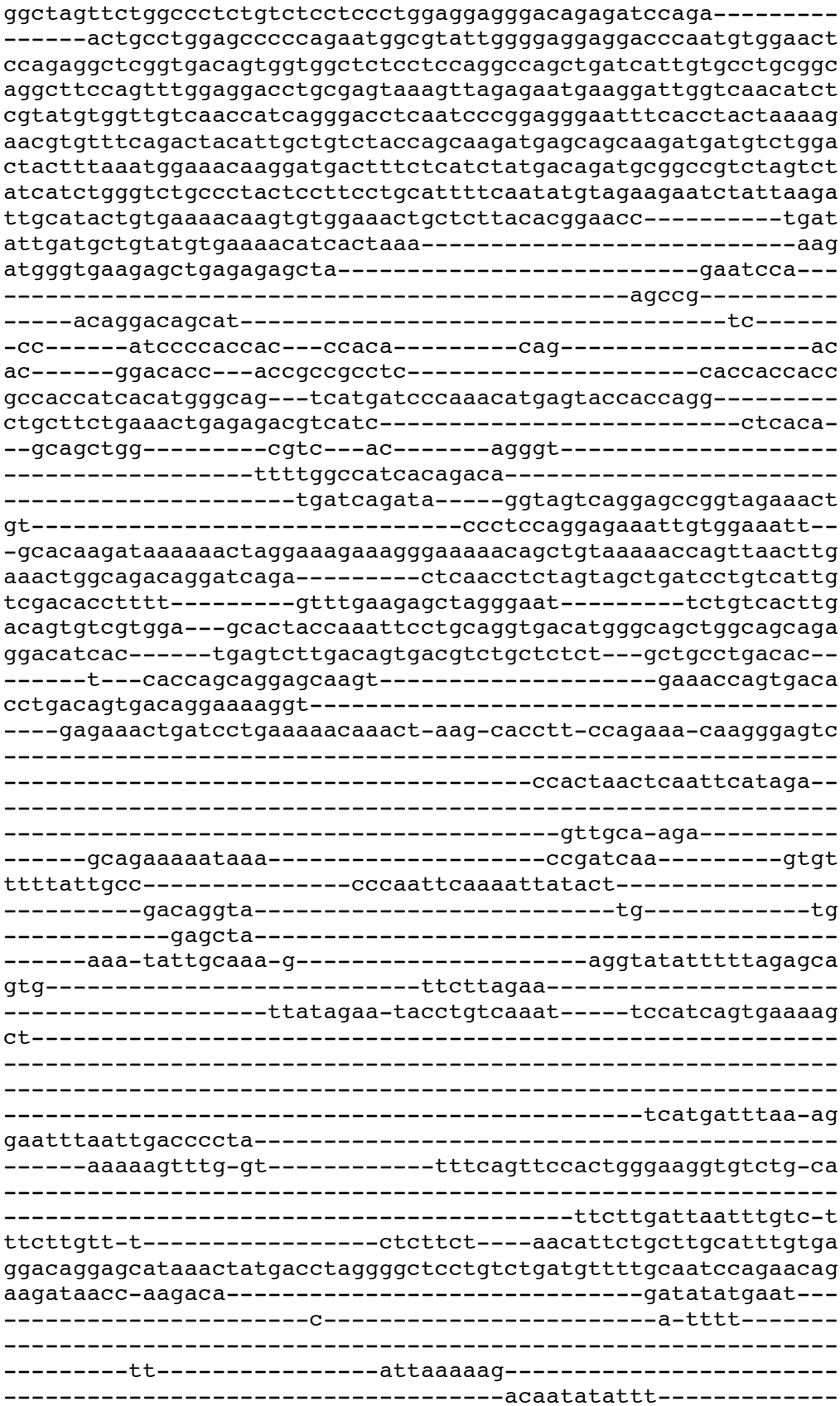


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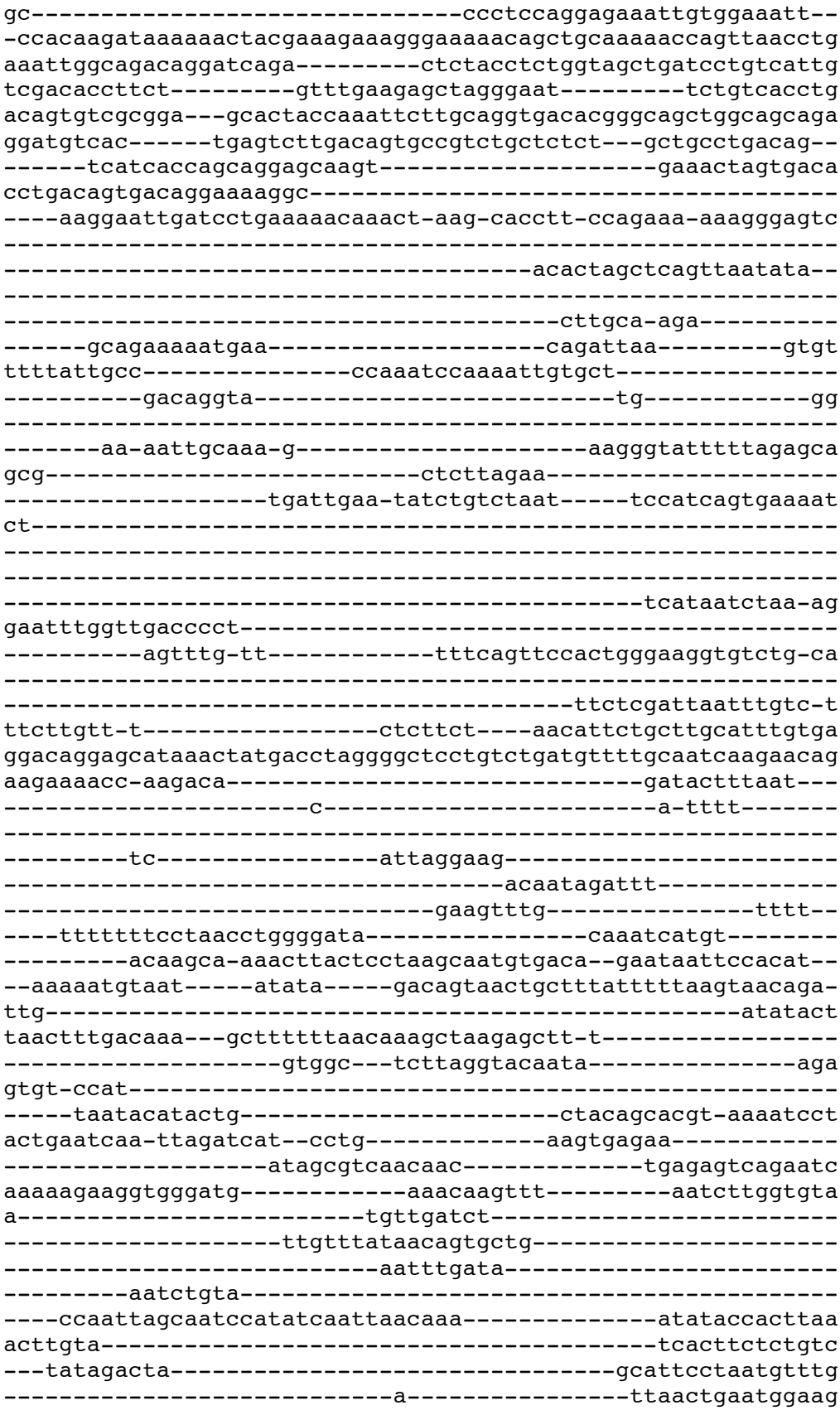
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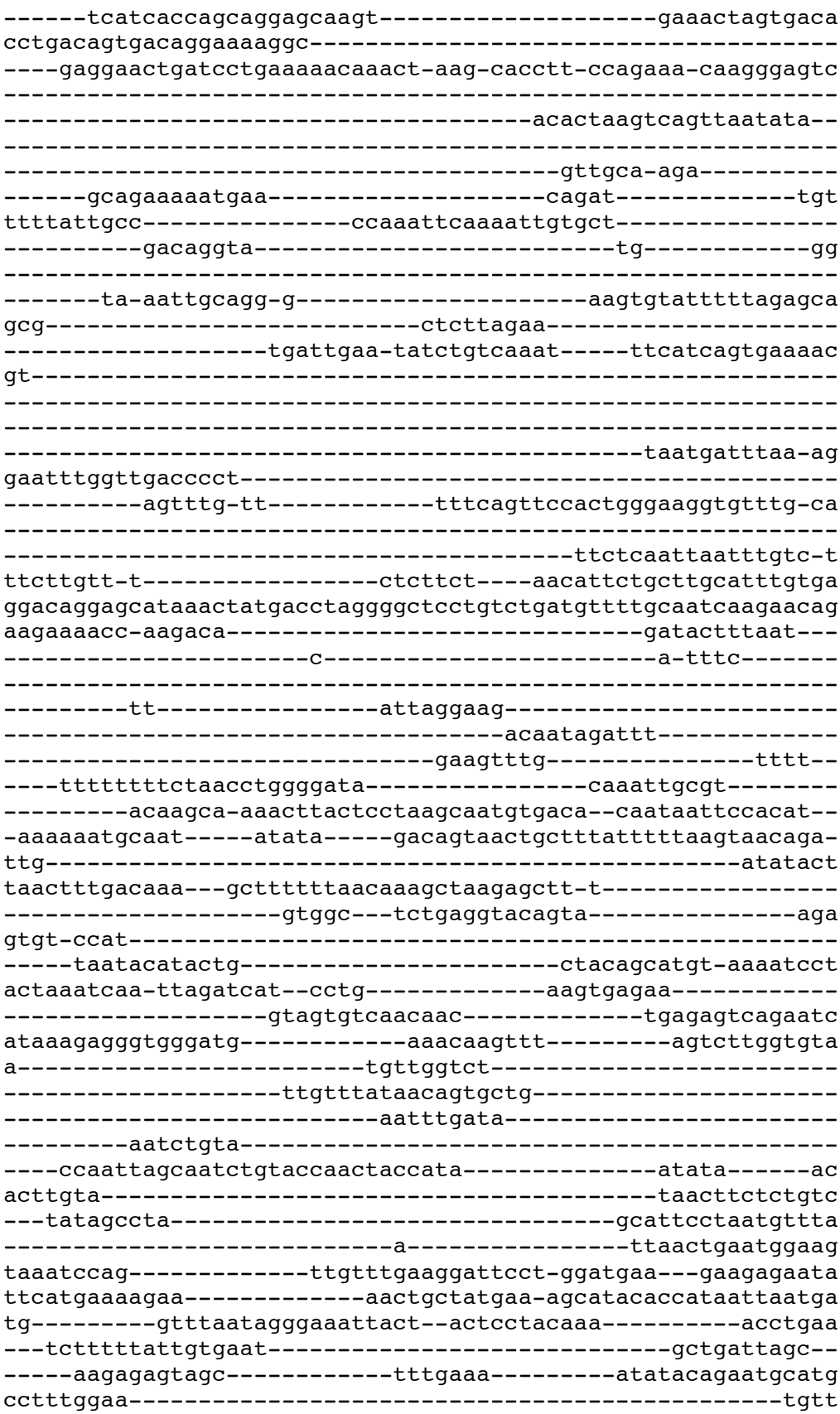


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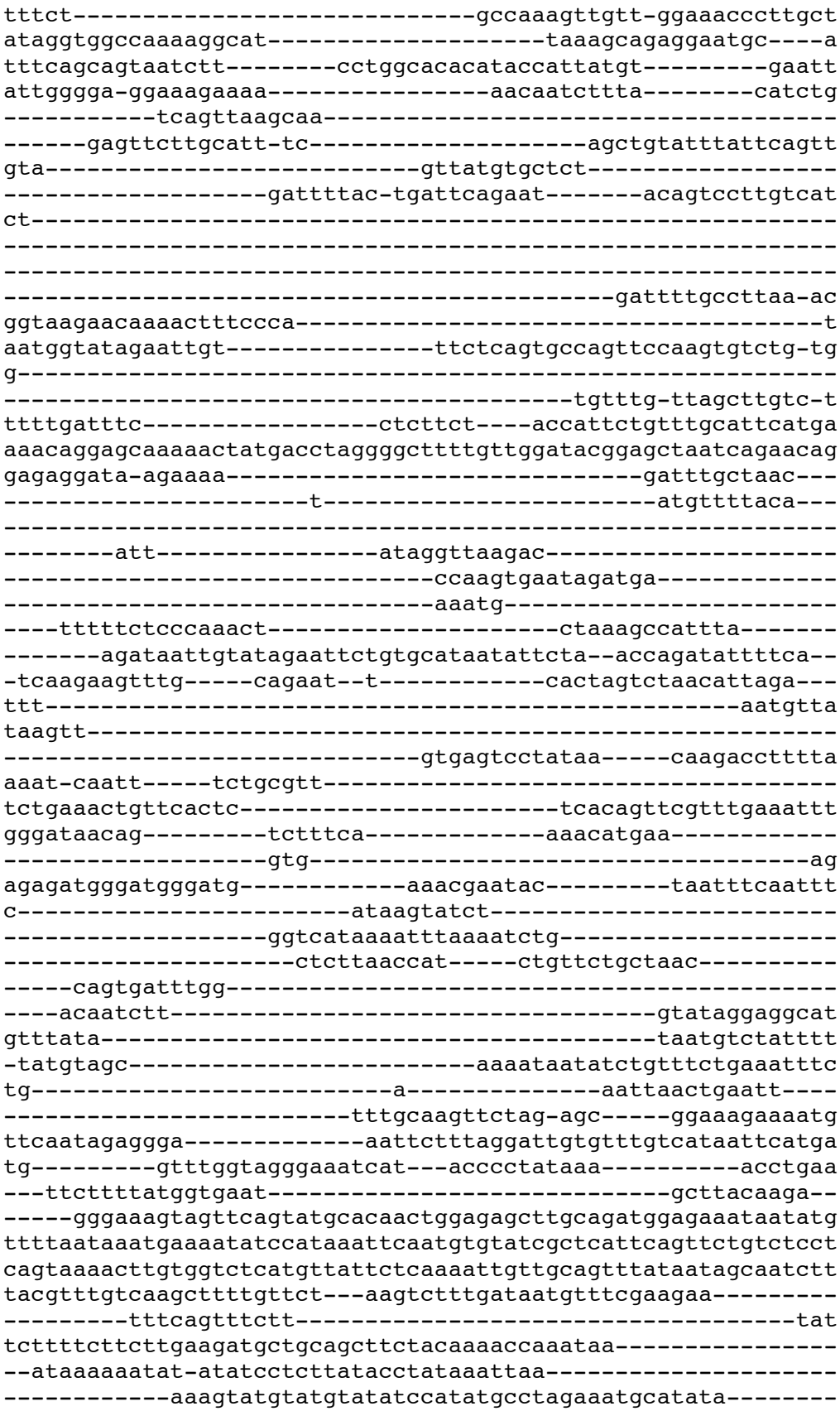
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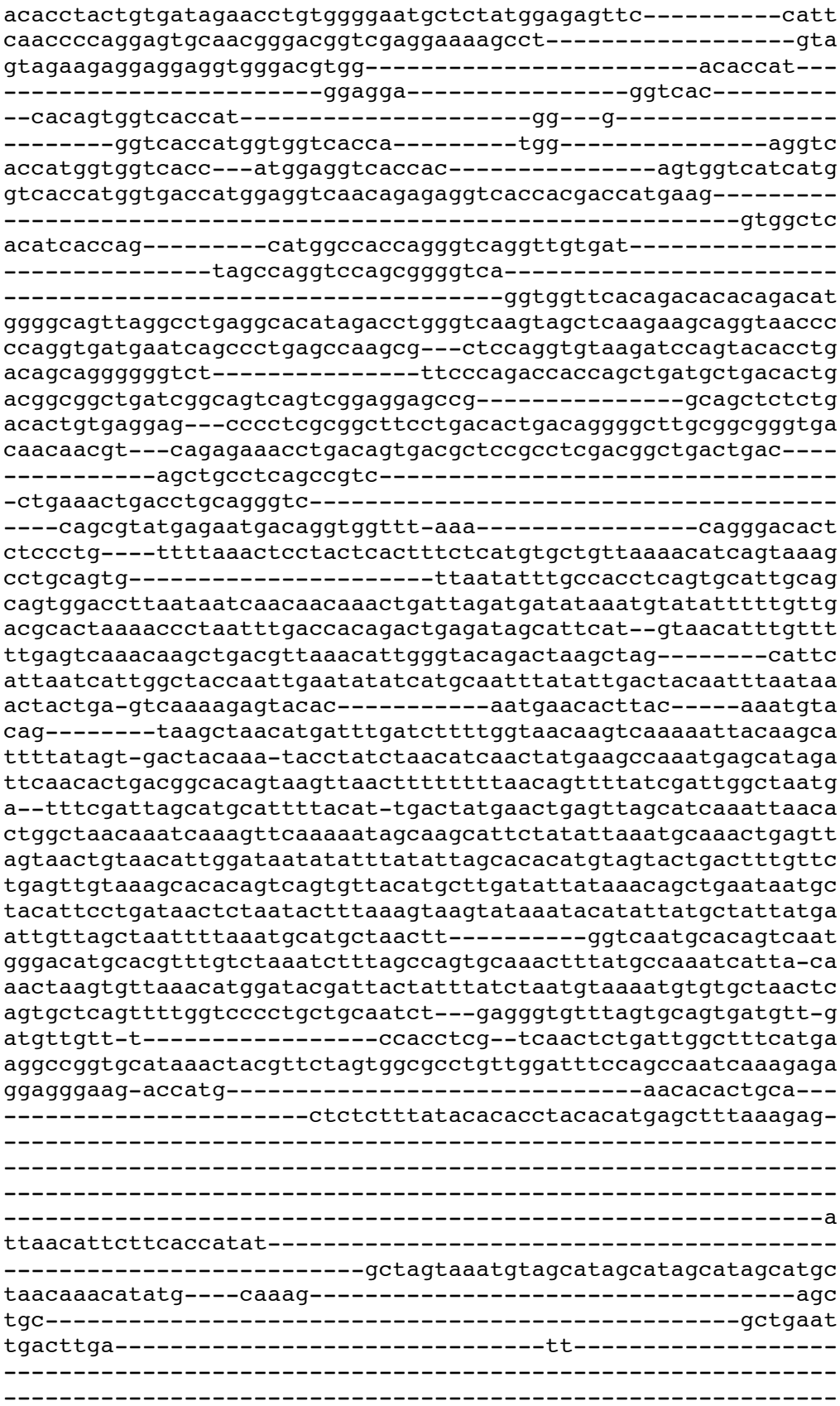
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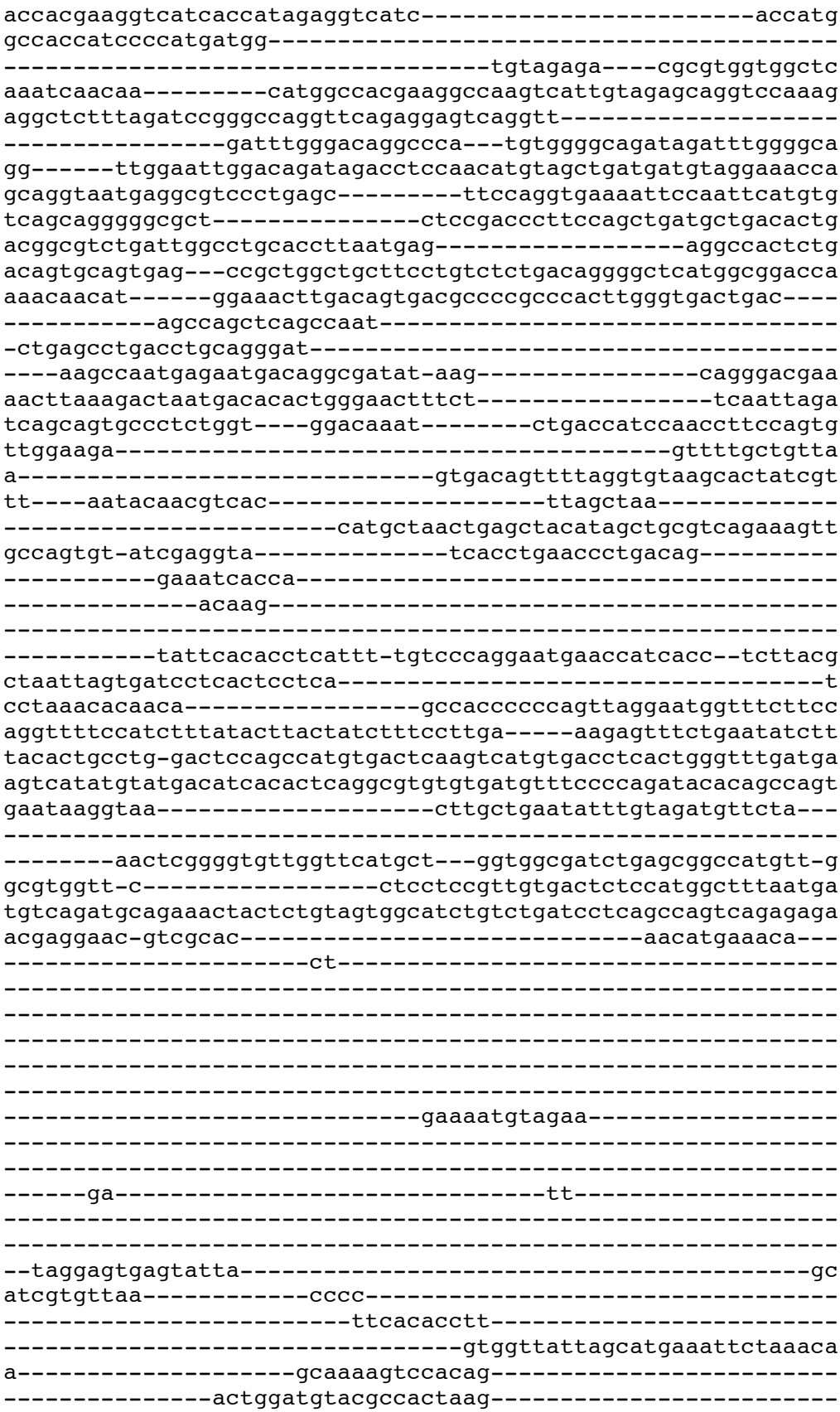
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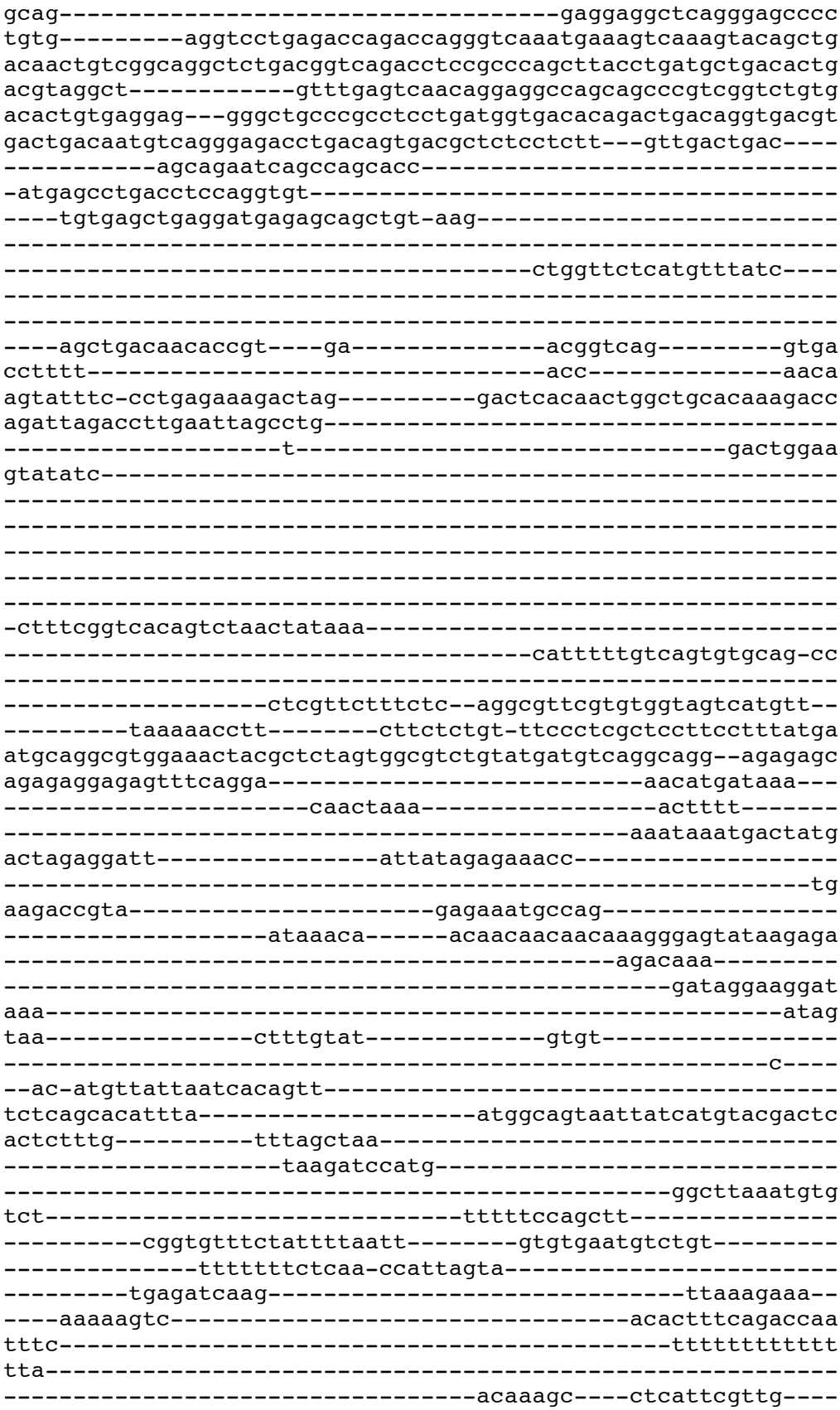
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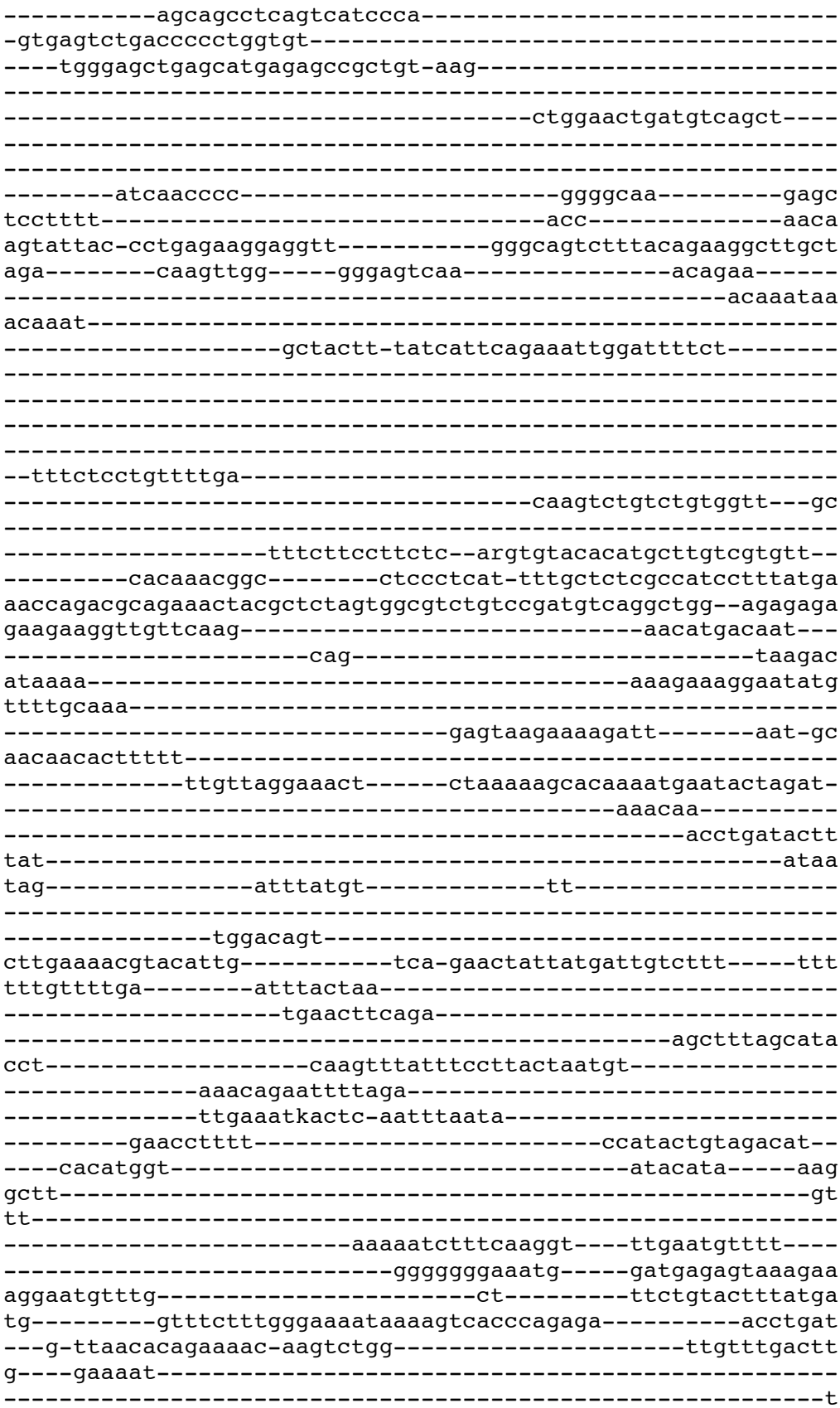
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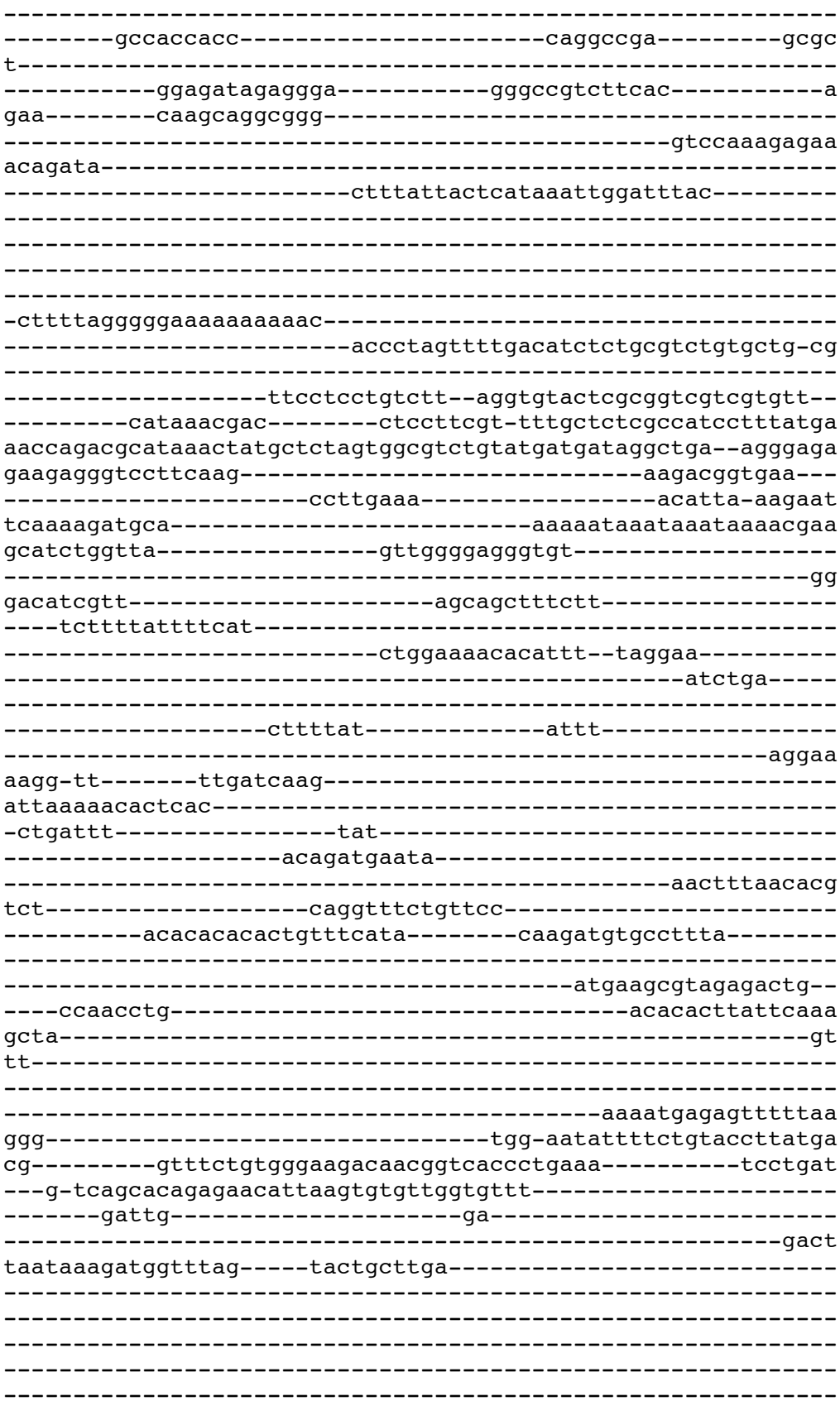
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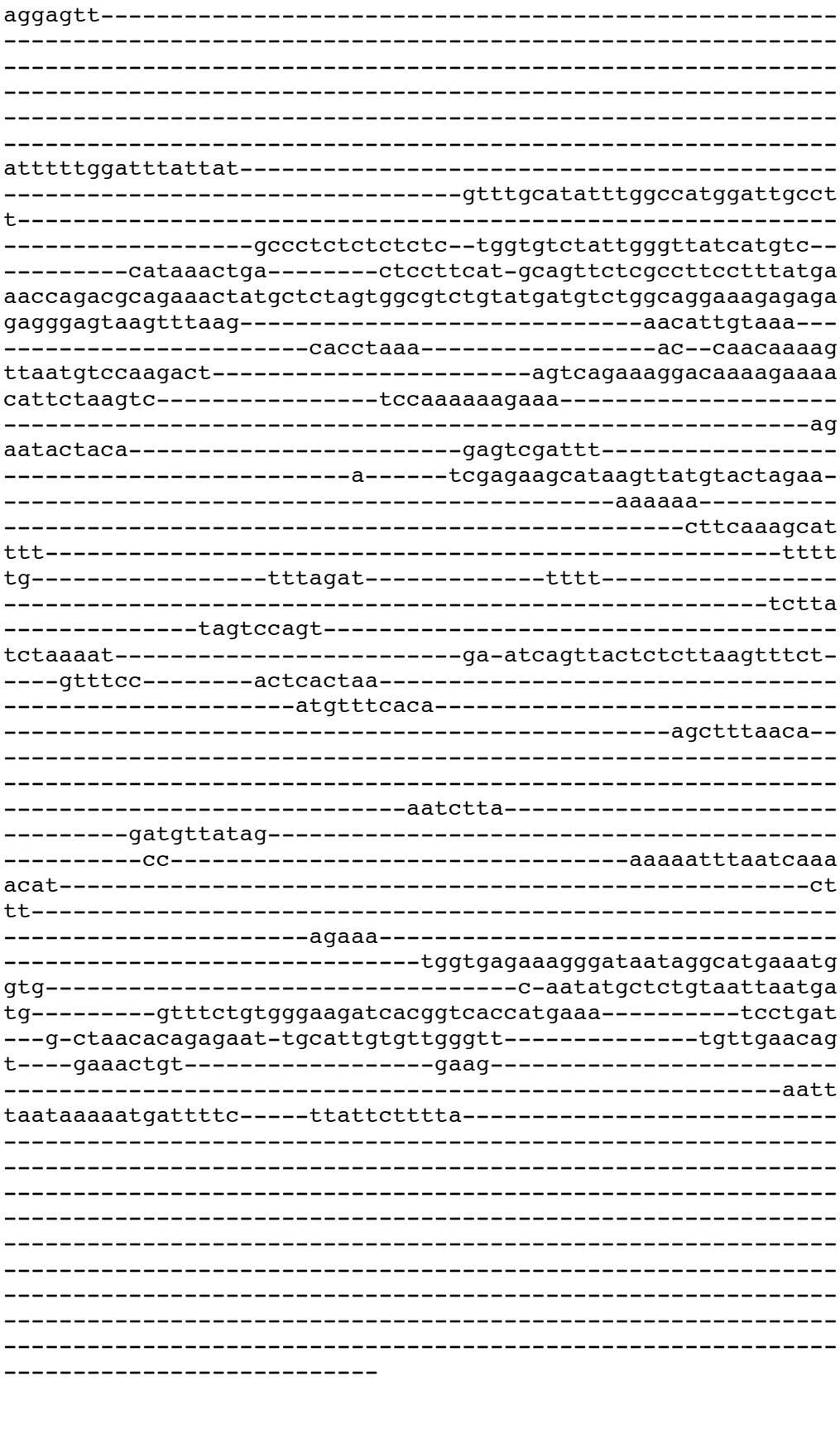
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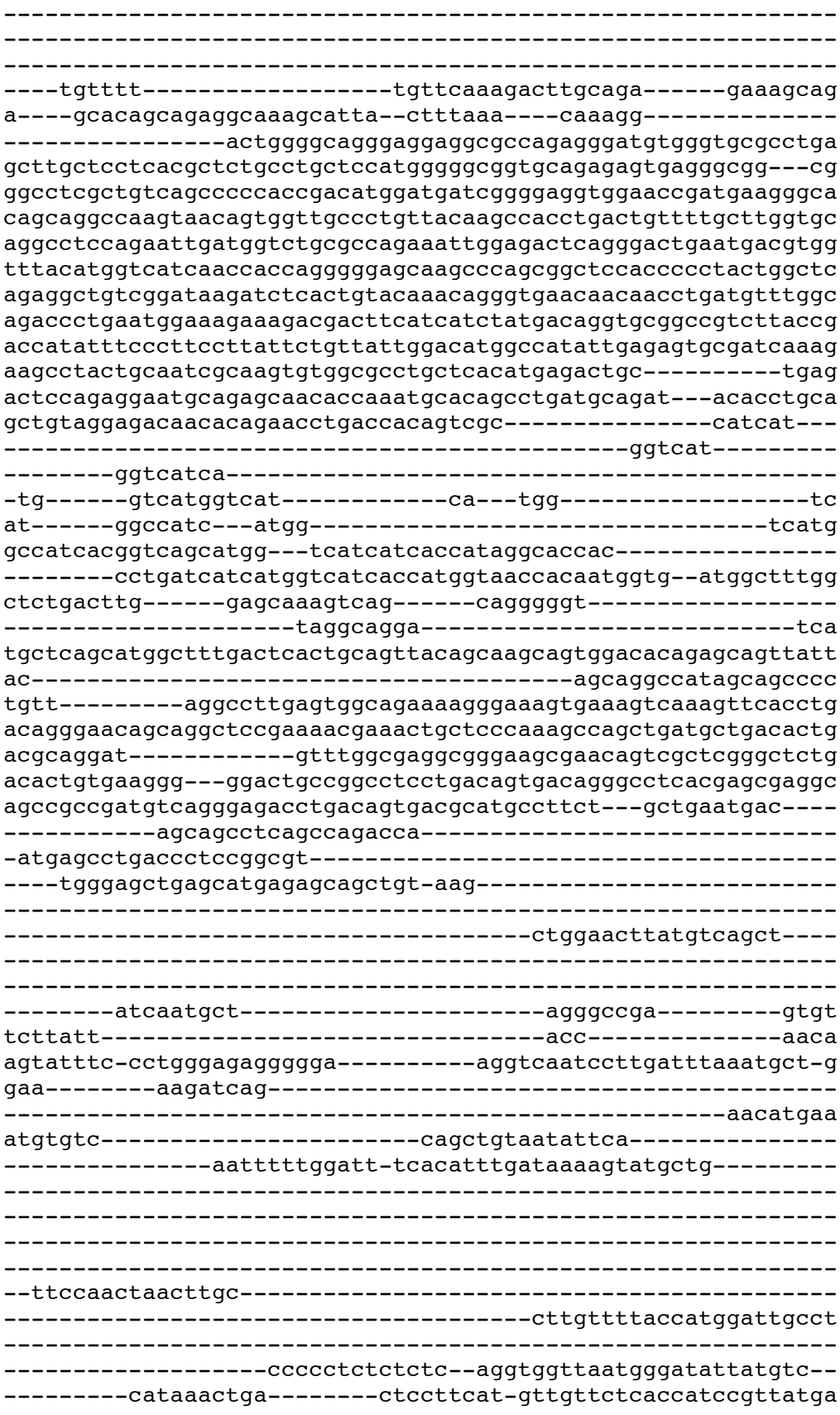
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>Fundulus_heteroclitus XM_012869956.1 PREDICTED: selenoprotein P, plasma, 1 (sepp1), mRNA

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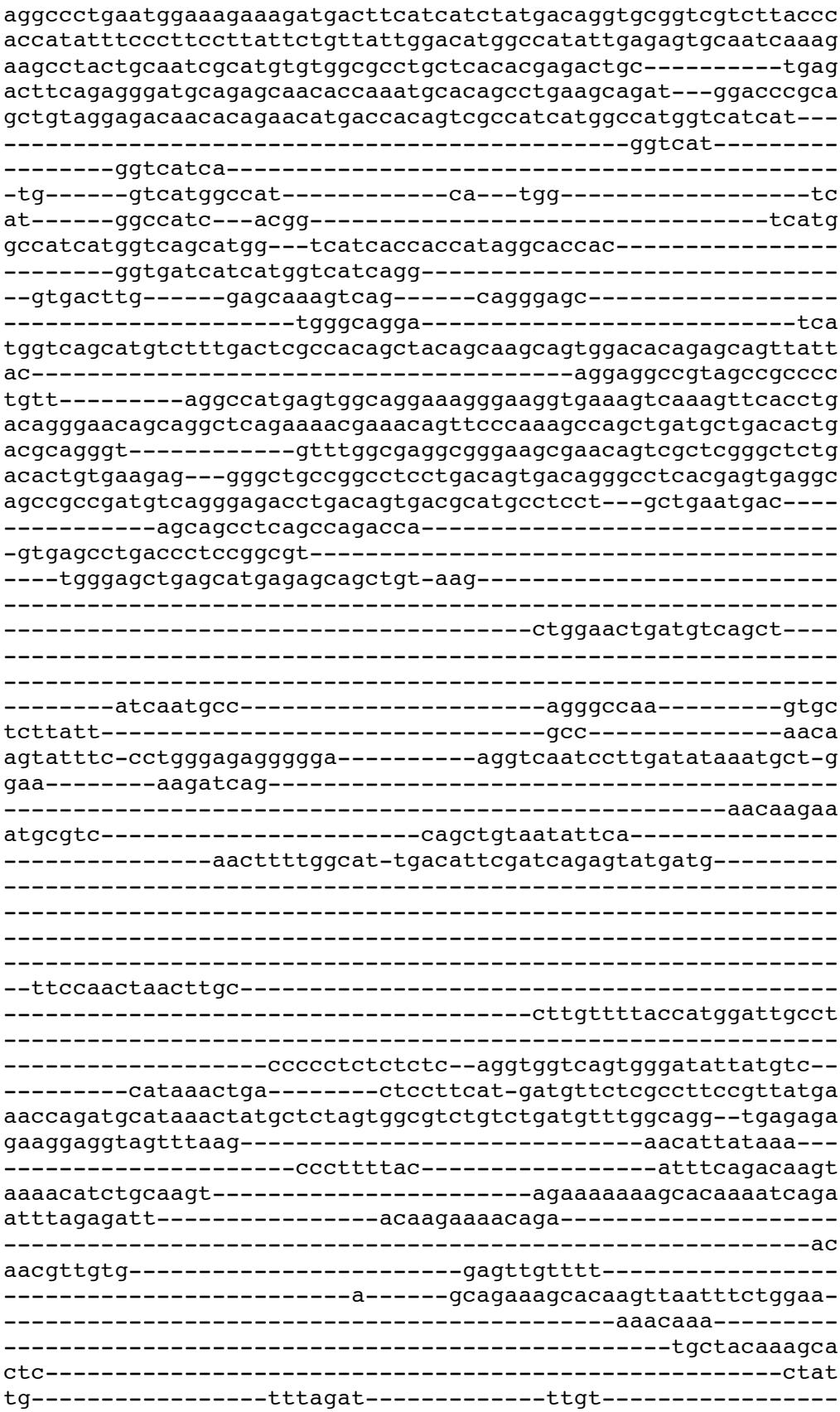
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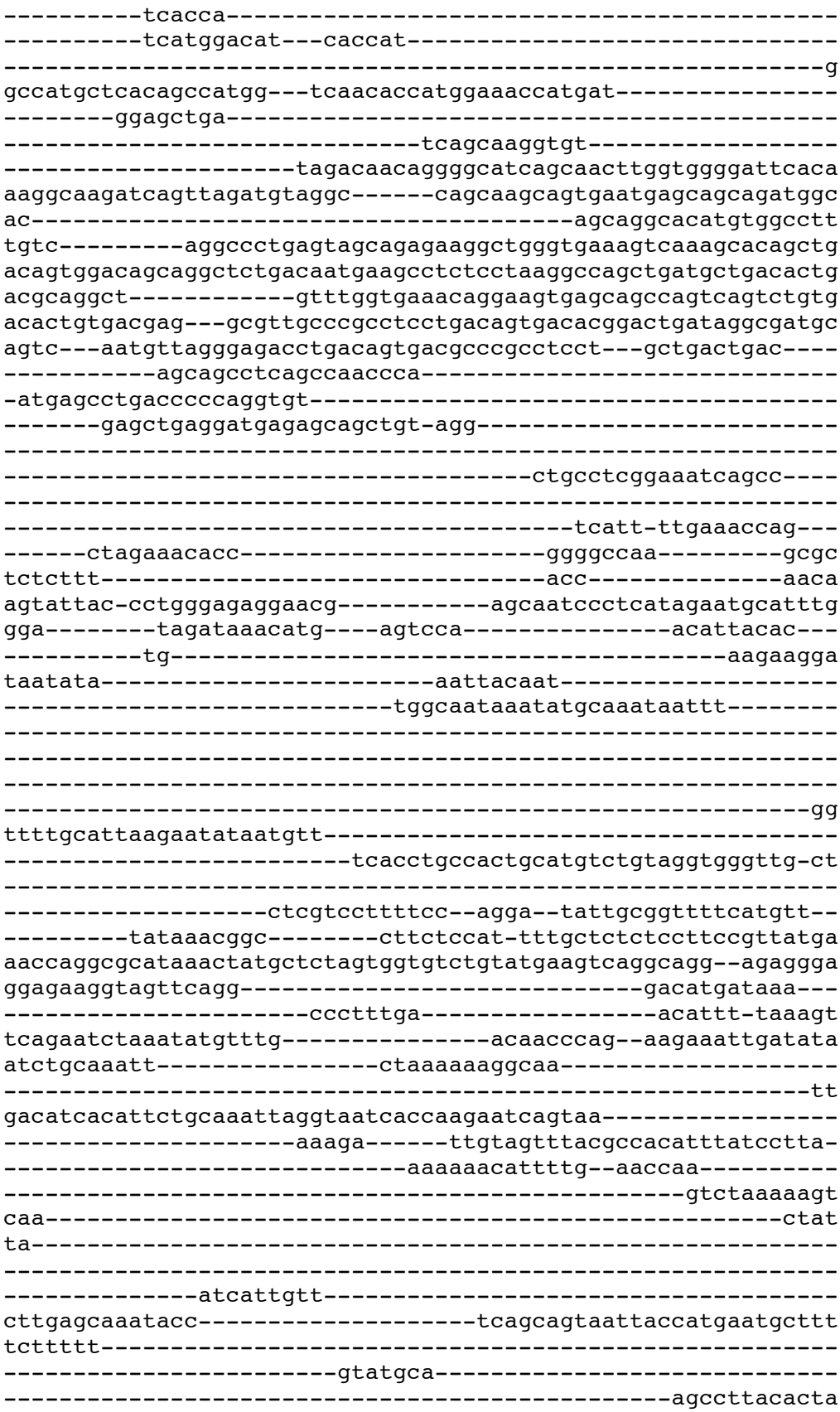


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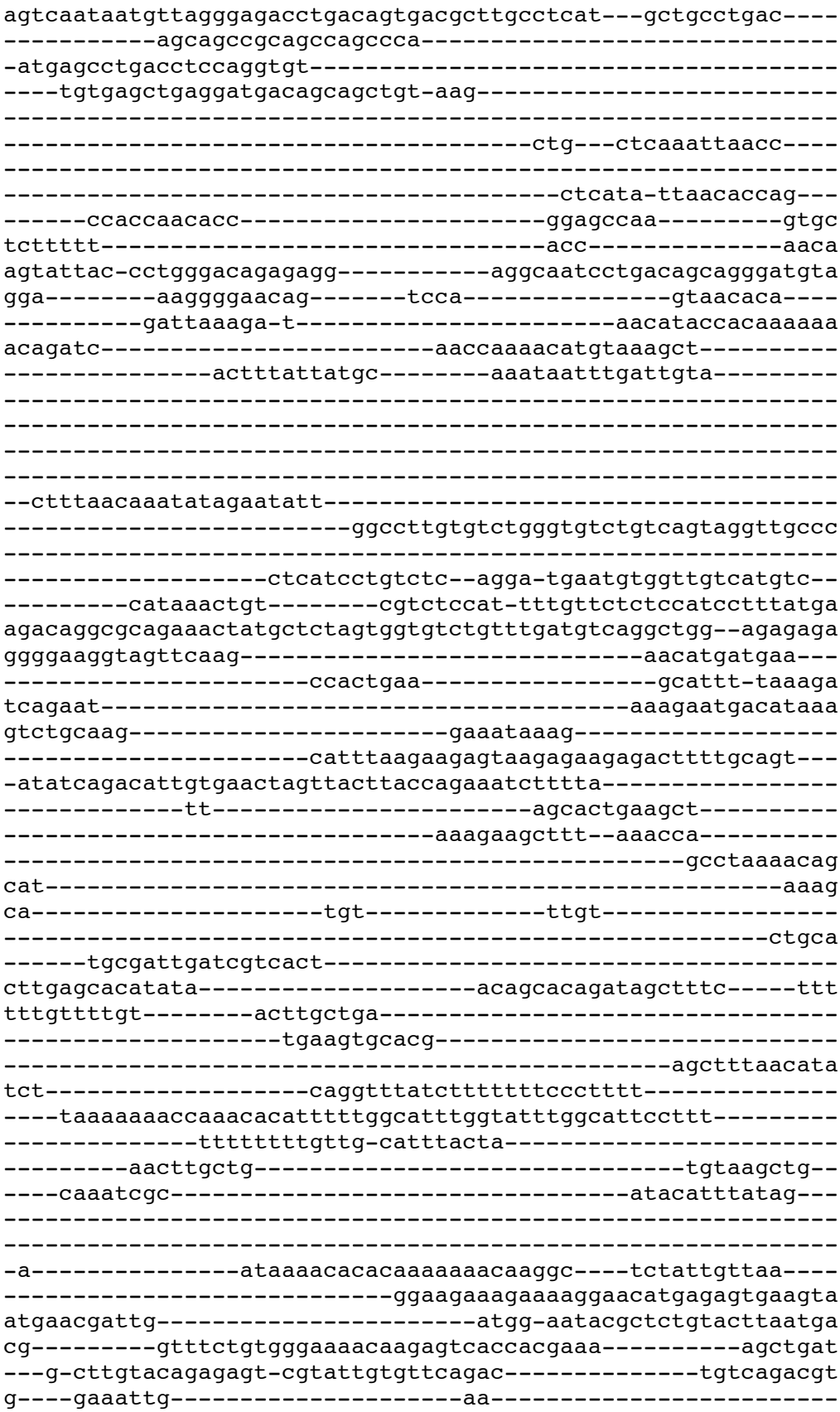
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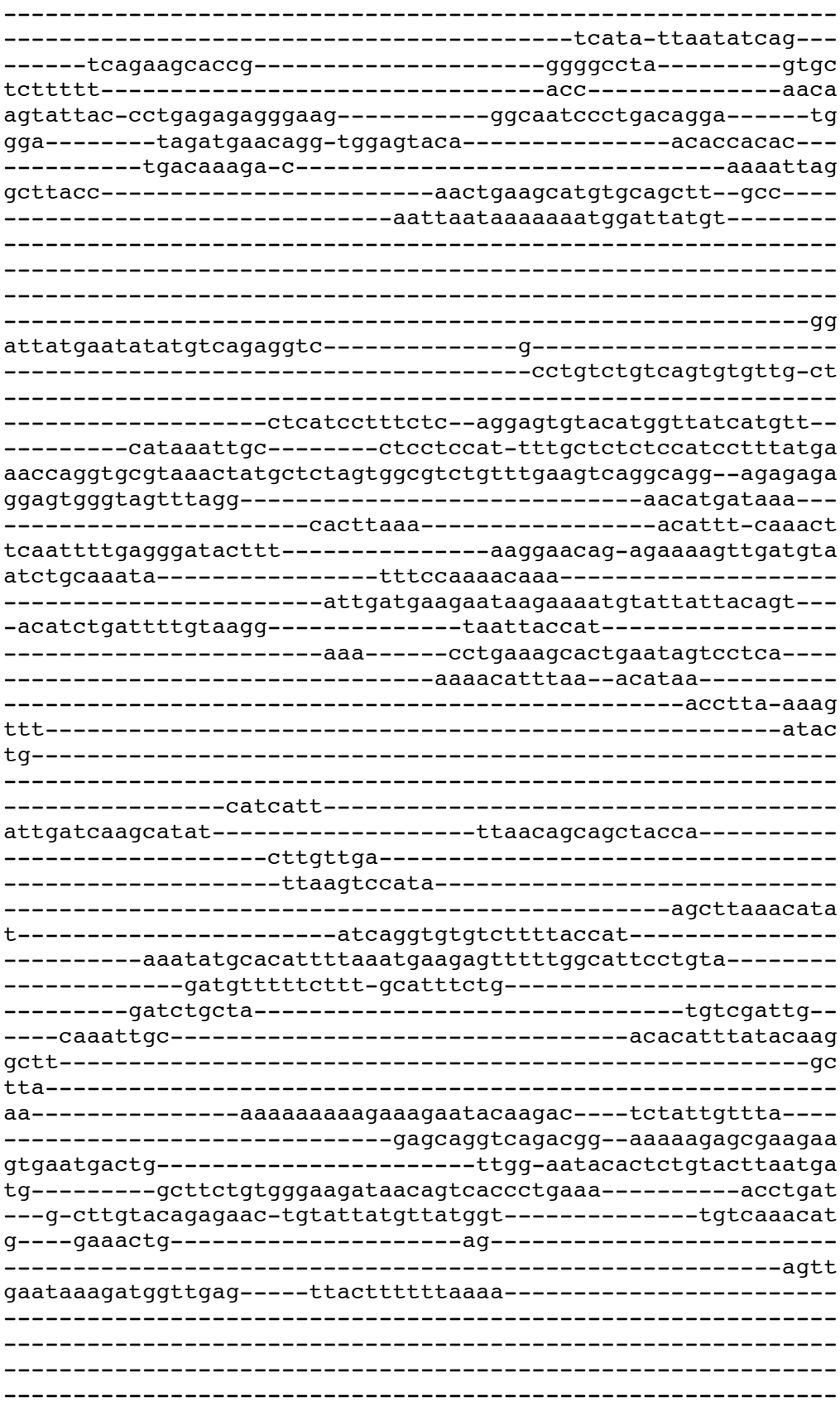
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>Larimichthys_crocea XM_019264479.1 PREDICTED: selenoprotein P (selenop),
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>Paralichthys_olivaceus XM_020102717.1 PREDICTED: selenoprotein P (selenop),
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>Oreochromis_niloticus XM_013271867.2 PREDICTED: selenoprotein P (selenop), mRNA

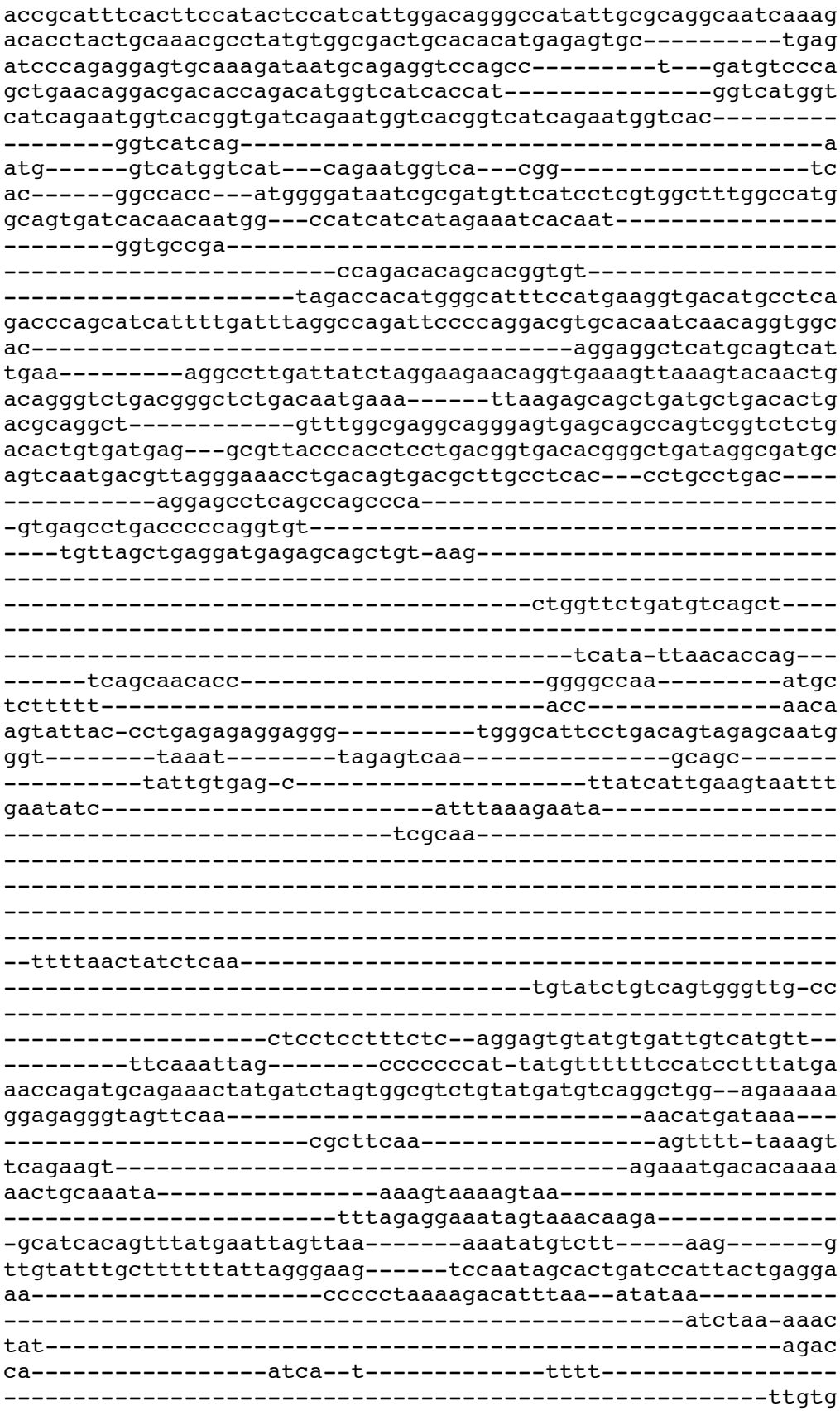
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>Pundamilia_nyererei XM_013913071.1 PREDICTED: selenoprotein P, plasma, 1
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>Haplochromis_burtoni XM_014332574.1 PREDICTED: selenoprotein P, plasma, 1
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>Maylandia_zebra XM_012918061.2 PREDICTED: selenoprotein P, plasma, 1 (sepp1),
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>Salmo_salar XM_014171136.1 PREDICTED: selenoprotein P, plasma, 1 (sepp1), transcript variant X2, mRNA





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aacatctcgaactgccgtactcactcttacatttcccttacgttgaagaagccataagaa
ttgcttattgtgaagataaatgtggggaatgtgaacacaagatact-------------a
gatgctgatgtttgcaagaaaccagaggagcagcaa------------gagcaagacaaa
ccagttgaagagaaggtggag----------------------------agaccca---
-----------------------------------------gacatc---------
---acaggaatcaccat-------------------------------------------a
gac------accaccgccct---aagcacag------tgg------------------gc
ac------agacacc-----------------------------------------gac
atcatcacagtgaagatgg---ccaagtggccgaacttga--------------------
------t-----------------------------------------------gtcctta
ggtctagcgc-----t-caagctaacaa------tagggc---------------------
------------------tggcagtcaaaatgggca----------------------
---------------------gggtcaaagt-----gttgtgcaagttgtaccacagagt
gagg-------------------ttttatttgtgccacaaagggagg---cagacattcc
agtattagctcgacagccttgaaaaaaggctaaaagc---tgaaagaaacagtatttatg
agactggagagaggagggagg---------caaggcatttaacagctgatgctgacactg
acgacagctgtc---------atttgaagtaacagaaaat---------gaagtggcttg
acactgacaggag---gctttgccatcttcctgcagttgacaagagctgctgtc---gga
cagcctccc------tgaatcctgacagtgacgtctgtctgcc---gctgcatgacat--
```



```
caataaaattcta--------------cacaaac-------------------------
-------------------------------------------------------------
-------------------------------------------------------------
-------------------------------------------------------------
---taaaaaaaaa-aaaaaa-------------------------------------------
-------------------------------------------------------------
-------------------------------------------------------------
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```

Supplementary Material S2. Protein alignment of the coding region of the alignment in Supplementary Material S1.

```
>Tupaia_chinensis XM_006166961.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
transcript variant X1, mRNA
MWRSLGLALALCLLPWGGTEGHRR-
SSFCKQPPAWSIRDQDPMLDSYGTVTVVALLQASUYLCILQASRLEDLRIKLEKEGYSNISYAIVNHQGISSQLKYIYLK
NKVSEHIPVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVSHLGLPFSFLTFSYVEEAIKSAYCEEKCGNCSLTTL--
KDKDFCKNVSLAAVEKTTE---APHP--------------------HH----------------------H---HKHH-H-
--------EP-----------------------------------GHQ---------HVGR---DQLPEN----
QQPGTPDEPL-----HIP-PPGL---------HHHHKHK-----------GHDRQ-----GHPESUDMP-----------
-----ELLQ-KKIURK---GCINQLLCQLPRDSE---LAPRSUCUHCRHL-IFEKTGA--AITUQCT-
ENLPSLCSUQGLRA--EENVIESCQURLPPAAUQTS-QQLSPTEVSTNU--------------KUNKKAEEUKULSN---
--------
>Condylura_cristata XM_012721935.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), transcript variant X1, mRNA
MWRSLGLALALCLLPHGGTESQGQ-
GSLCKPPPPWSIKDEDPMLNSNGSVTVVALLQASUHLCVLQASRLEDLRVKLDKEGYSNISYVIVNHQGTDSQQKYMLLK
NEVSKHIPVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVYHFGLPFSFLTFPYVEEAIKTAYCEKKCGSCSLMTS--
GDEEFCKNISLAAVEKTTE---ALPP--------------------HR----------------------HN--HQHP-H-
--------PHP-----------HPHPHPHPRPGRLYPYHLWLGLGHQ---------HLG----SQLSKD----
QQPDASAAPSAA-PEHPH-APGH---------QHPHKHQ-----------GQQRE-----GNPENUDTP-GS-ESL----
---QLSLLQ-KKLURR---GCINQLLUKMPQVSE---LAPGSUCUHURHL-IFEKTGS--AVTUQCK-
EHLPSLCSUQGLWA--EENVIESUQURLPPAAUQTSRQQPMPTEASTKU--------------SUKDQAEMUKUPSN---
--------
>Galeopterus_variegatus XM_008566693.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWRSLGLALALCFLPWGGTESQGQ-
SSYCKQPPTWSIGEQNPMLNSYGSVTVVALLQASUYVCILQASGLEDLRVKLEKEGYFNISYAIVNHQGISSQLQYIHLK
NKVSEHIPVYQQEETQTDVWTLLNGDKNDFLIYDRCGRLVYYLGLPYSYLSLPYVEEAIKIAYCEKKCGNCDLMTP--
KDEDFCKNVSLATVEKTTE---APQP--------------------HH----------------------H---HKHH-H-
--------KH-----------------------------------GHQ---------HLGS---GHLSEN----
QQLGAPDTPP-----HFP-PSAL---------HHHHKHK-----------GQHRQ-----GHPESUEMP-ES-EGL----
---QLSLLQ-KKLCRK---RCINQLRCKLPKDSD---LAPSSCCCHCRHL-IFEKTGS--AITUQCT-
ENLPSLCSUQGLWA--EENVIESCQURRPPAVUQ-S-QQLMPTEASTNU--------------SUNIKAKKUKUPSN---
--------
>Oryctolagus_cuniculus NM_001199846.1 selenoprotein P (SELENOP), mRNA
MWKSLGLALALCLLPWGGTESHIP-
SSICKQPPSWSIAEQDPMLNSFGSVTVVALLQASUYLCILQASRLEELRVKLEKEGYSNISYVVINHQGIDSQLKYIHLK
NKVSHHILVYQQEENQTDVWTLLKGSKDDFLIYDRCGRLVYHLALPYSFLTFPYVEEAIKIAYCEETCGNCSLMTP--
EDESFCKNVSLATVEKVSE---ALRP--------------------HH----------------------H---HTHH-H-
```

--------KH-----------------------------------GHQ---------HLDS---SELSEK----
QHPGTPDAPL-----HLP-PSGL---------HHHHKHR-----------DQHRQ-----GNQESUDMP-ES-ESL----
---QLSLVR-KKLUQR---GCLNQLRCKMLKKSE---LAPSSCCCHCRHL-IFENTGS--AVTURCR-
ENLPSLCSUQGLLA--EENVIESCQURLPPAAUQTS-QQLKPTEASTNU--------------SUNNLAKKUKUPSN---
----
>Ictidomys_tridecemlineatus XM_005325611.2 PREDICTED: selenoprotein P, plasma, 1
(Sepp1), mRNA
MWRSLGLALALCFLPYGGTESQGE-
NFICKQPPDWSIRDQNPMQNSHGSVTVVALLQASUYLCILQASRLEDLRIKLEKEGYSNISYIVVNHQGISSQLNYIHLK
NKVSDHIPVYQQEENQTDVWTLLNGYKDDFLIYDRCGHLVYHLGLPYSFLTSPYVEDAIKIAYCEDRCGNCSFRTL--
ENEDLCRNVSLLTVEKTTE---ALQP--------------------HH----------------------H----------
---------H-----------------------------------NHQ---------HLGS---SELSEN----
QQPGAADTPS-----NPA-PLDL---------HHHKKHK-----------GQYRQ-----GNSESUQMA-GS-EGL----
---QLSLAQ-RKLCQK---GCVNQLQCKLFKDPQ---AASSSCCCHCRHL-IFEKRES--AITUQCA-
ENLPSLCSUQGLRA--EENVIESCQURMPPAAUQRS-QQLDPTEVGTSU--------------SUKNKAKKUKUHSN---
----
>Marmota_marmota XM_015490466.1 PREDICTED: marmota selenoprotein P, plasma, 1
(Sepp1), transcript variant X1, mRNA
MWRSLGLALALCFLPYGGTESQGE-
NFICKQPPDWSIRDQNPMQNSHGSVTVVALLQASUYLCILQASRLEDLRIKLEKEGYSNISYIVVNHQGISSQLKYIHLK
NKVSDHIPVYQQEENQKDVWTLLNGYKDDFLIYDRCGHLVYHLGLPYSFLTFPYVEDAIKIAYCEDRCGNCSFRTL--
ENEDFCRNVSLPTVEKTIE---ALQP--------------------HH----------------------H----------
---------H-----------------------------------SHQ---------HLGS---SELSKN----
QQPGAADTPS-----NPA-PLDL---------HHHKKHK-----------GQYRQ-----GNSESUQMA-GS-EGL----
---QLSLAQ-RKLCQK---GCVNQLQCKLFKDPQ---AASSSCCCHCRHL-IFEKRES--AITUQCA-
ENLPSLCSUQGLRA--EENVIESCQURKPPAAUQRS-QQLDPTEVGTNU--------------SUKNKAKKUKUHSN---
----
>Cricetulus_griseus NM_001256878.1 selenoprotein P (Selenop), mRNA
MWRSLGLALALCLLPYGGTESQGQ-
SPACKQPPAWSIGDQNPMLNSEGTVTVVALLQASUYLCLLQASRLEDLRLKLENQGYSNISYIIVNHQGSPSQLKHTHLK
NHVSDQIAVYRQEEHQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCRNCSFTSL--
EDEDFCKNVSSATKGKTAE---PSEA--------------------HH----------------------H---HKHH-H-
--------KH-----------------------------------GHG---------LLGSR--EELSEN----
QQPGAADAEA-----PLP-PVGL---------HHHHKHK-----------GKHRQ-----GHLESUDMQ-AS-EGL----
---QLSLAQ-RKLCRK---GCINQLLCKLSQESG---TTTSSCCCHCRHL-IFEKSGS--AITUQCA-
ENLPSLCSUQGLFA--EEKVIESCQCRSPPAAUQ-S-QPLDPTGASPNU--------------SUDNKIKKUKURSN---
----
>Microtus_ochrogaster XM_005369804.1 PREDICTED: selenoprotein P, plasma, 1
(Sepp1), mRNA
MWRSLGLALALCLLPYGGAEGQGQ-
SPACKQPPAWKIGDENPMLDSEGTVTVVALLQASUYLCLLQASRLEDLRLKLEHQGYSNISYIVVNHQGSPSQLKHIHLK
KQVSAQIAVYRQEEHQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCENKCGNCSLTSL--
EDEEFCKNVSLPAVGRSAE---PSKA--------------------HH----------------------H---HKHH-H-
--------RH-----------------------------------GHG---------HLGN---SELSEN----
QQPGALNMEP-----ALP-PSGL---------HHRHKHR-----------GQHKQ-----GHLESUDMQ-AN-EGV----
---QLSLAQ-RKLURK---GCVNQLLCTLSKESG---TTTNSCCCHCRHL-IFEKSGS--AITUQCA-
ENLPSLCSUQGLFA--EEKVIESCQCRSPPAAUQ-S-QPLNPTEAGTTU--------------SUNNKTKKUKURSN---
----
>Mus_musculus NM_009155.4 selenoprotein P (Selenop), transcript variant 1, mRNA
MWRSLGLALALCLLPYGGAESQGQ-
SSACYKAPEWYIGDQNPMLNSEGKVTVVALLQASUYLCLLQASRLEDLRIKLESQGYFNISYIVVNHQGSPSQLKHSHLK
KQVSEHIAVYRQEEDGIDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEERCGNCNLTSL--
EDEDFCKTVTSATANKTAE---PSEA--------------------HS----------------------H---HKHH-N-
--------KH-----------------------------------GQE---------HLGS---SKPSEN----QQPGP--
SET-----TLP-PSGL---------HHHHRHR-----------GQHRQ-----GHLESUDTT-AS-EGL-------

HLSLAQ-RKLURR---GCINQLLCKLSKESE---AAPSSCCCHCRHL-IFEKSGS--AIAUQCA-ENLPSLCSUQGLFA-
-EEKVTESCQCRSPPAAUQ-N-QPMNPMEANPNU--------------SUDNQTRKUKUHSN-----------
>Rattus_norvegicus NM_019192.2 selenoprotein P (Selenop), transcript variant 1,
mRNA
MWRSLGLALALCLLPYGGAESQGQ-
SPACKQAPPWNIGDQNPMLNSEGTVTVVALLQASUYLCLLQASRLEDLRIKLENQGYFNISYIVVNHQGSPSQLKHAHLK
KQVSDHIAVYRQDEHQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKRCGNCSFTSL--
EDEAFCKNVSSATASKTTE---PSEE--------------------HN----------------------H---HKHH-D-
--------KH-----------------------------------GHE---------HLGS---SKPSEN----
QQPGALDVET-----SLP-PSGLH------HHHHHHKHK-----------GQHRQ-----GHLESUDMG-AS-EGL----
---QLSLAQ-RKLURR---GCINQLLCKLSEESG---AATSSCCCHCRHL-IFEKSGS--AITUQCA-
ENLPSLCSUQGLFA--EEKVIESCQCRSPPAAUH-S-QHVSPTEASPNU--------------SUNNKTKKUKUNLN---
----
>Fukomys_damarensis XM_010633881.2 PREDICTED: selenoprotein P (Selenop),
transcript variant X1, mRNA
MWRSLGLALVLCLLPGGGAESQSR-
SSFCKQPPAWSIKNQNPMLNATGTVTVVALLQASUYLCILQASRFEDLRVKLEKEGYFSISYVIVNHQGIDSRLKHIHLK
NRVSDHISVYQQEEHQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFPYVEEAIKIAYCEEKCGNCSLRTL--
EDEDFCKNVSLATAEKTAE---AP---H---STDN-H-
--------KH-----------------------------------GHQ---------HLGG---SELSEN----
KQPEAPDNPVLSPLNNPV-LSPL---------GHHHRRELMPN-------GQQGQ-----GHSESUFMS-ES-EAL----
---QLSLAQ-RKLCHR---GCKNQLLCKFPSDSQ---LAPTSCCCYCRHL-VFGTKAS--SVTCQCA-
ENLPSLCSCQGDWV--GEKVIESCQCRLPPAAUQIR-QQQKPTETNRDU--------------S-UNRAQKUKUPSN---
----
>Otolemur_garnettii XM_012807089.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), transcript variant X1, mRNA
MWRSLGLALALCLLPAGGTESQGQ-
SSLCKQPPPWRIGDQNPMLNSSGSVTVVALLQASUQLCILQASRLEDLRLKLEKEGYSNISYIVVNHQGISSQLRYVHLK
DQVSEHIPVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSHTTL--
KDEDFCKNVSLATVEKTTK---APQPH--------------------HH----------------------H---HKHH-H-
--------NH-----------------------------------RHQ---------HLGS---SELSEN----
QQPGAPDVPT-----HPP-PRDL---------HHHHKHK-----------GQHRQ-----GHPENUHML-GS-EGV----
---QLA----QKLUQK---RCKNQLLUKLSQDSE---LAPTSUCUYCRHL-IFEKTGS--AITUQCK-
ENFPSLCSUQGLWA--EEKVIESCQURLPPAVUQAS-QQLIPTETSPKU--------------SGAIKEKKUEUPSN---
----
>Microcebus_murinus XM_012777767.2 PREDICTED: selenoprotein P (SELENOP), mRNA
MWRSLGLALALCLLPMGGTESQGE-
SSLCKQPPAWNIGDQDPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQGISSRLNYIHLK
NKVSEHIPVYQQEEHQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEDAIKITYCEKKCGNCSLTTL--
ESEDFCKNVSLATVEKTTE---APKP--------------------HH----------------------H---HRHH-H-
--------KH-----------------------------------GHR---------HLGS---SEHSEN----
QQPEAPDAPT-----H-A-PLDL---------HHHHKHK-----------GQHRQ-----GHSDSUDMP-GS-EGL----
---Q--LAH-KKLUQK---RCKNQLLCKLPKDSE---SAPSSUCUHCRHL-IFEKAGS--AITUQCK-
ENLPSLCSUQGLLA--EEKVIESCQURLPPAAUQIS-QHLMPPEASANU--------------SUTIKGKKUQUPSN---
----
>Nomascus_leucogenys XM_012501646.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), transcript variant X5, mRNA
MWRSLGVVLALCLLSLGGTESQDQ-
SSLCKQPPAWSIRDQDPMINSNGSVTVVALLQASUYLCILQASKLEDLRVKLKKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGRLAYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTP--
KDEDFCKSVSLATVDKTVE---APSS--------------------HY----------------------H---HEHH-H-
--------NH-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPDAPP-----HPA-PLGL---------HHHHKHK-----------GQHRQ-----GHPENRDMP-GS-EDL----
---Q--HLQ-KKLUQK---RCINQLLCKLPKDSE---LAPRSCCCHCRHL-IFEKTGS--AITUQCK-

ENLPSLCSUQGLRA--EENITESCQURLPPAAUQIS-QQLIPTEASTSU--------------RUKNKAKKUEUPSN---
----
>Pongo_abelii NM_001133990.1 selenoprotein P (SELENOP), mRNA
MWRSLGLALALCLLPLGGTESQDQ-
SSLCKQPPAWSIRDQGPMLNSNGSVTVVALLQASUYLCILQASKLEDLRVKLKKEGYSNISHIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGRLVYHLGLPFSFLTFPYVEEAVKIAYCEKKCGYCSLTTL--
KDEDFCKSVSLATVDKTVE---APSP--------------------HY----------------------H---HEHH-H-
--------NH-----------------------------------RHQ---------HLGS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPENRDMP-GS-EDI----
---Q--DLQ-KKLCRK---RCINQLLCKLPKDSE---LAPRSCCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EENITESCQURLPPPAUQIS-QQLIPTEASTSU--------------RUKNQAKKUEUPSN---
----
>Pan_paniscus XM_008963340.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSLCKQPPAWSIRDQDPMLNSSGSVTVVALLQASUYLCILQASKLEDLRVKLKKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGRLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKRVSLATVDKTVE---TPSP--------------------HY----------------------H---HEHH-H-
--------NH-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPNAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPENQDMP-GS-EDL----
---Q--DLQ-KKLCRK---RCINQLLCKLPKDSE---LAPRSCCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EENITESCQURLPPAAUQIS-QQLIPTEASTSU--------------RUKNQAKKUEUPSN---
----
>Pan_troglodytes NM_001115115.1 selenoprotein P (SELENOP), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSLCKQPPAWSIRDQDPMLNSSGSVTVVALLQASUYLCILQASKLEDLRVKLKKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGRLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKRVSLATVDKTVE---TPSP--------------------HY----------------------H---HEHH-H-
--------NH-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPNAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPENQDMP-GS-EDL----
---Q--DLQ-KKLCRK---RCINQLLCKLPKDSE---LAPRSCCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EENITESCQURLPPAAUQIS-QQLIPTEASTSU--------------CUKNQAKKUEUPSN---
----
>Gorilla_gorilla XM_019013293.1 PREDICTED: gorilla selenoprotein P (SELENOP),
mRNA
MWRSLVLALALCLLPSGGTESQDQ-
SSLCKQPPAWSIRDQDPMLNSNGSVTVVALLQASUYLCILQASKLEDLRVKLKKEGYSNISYIVVNHRGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGRLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKRVSLATVDKTVE---TPSP--------------------HY----------------------H---HEHH-H-
--------NH-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPENRDMP-GS-EDL----
---Q--DLQ-KKLCRK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EENITESCQURLPPAAUQIS-QQLIPTEASTSU--------------RUKNQAKKUEUPSN---
----
>Rhinopithecus_roxellana XM_010374394.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSFCKQPPAWSIRDQDPMLDSNGSVTVVALLQASUYLCILQASKLEDLRVKLEKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGLLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKSISLATVDETVE---APQL--------------------HY----------------------H---HEHH-H-
--------NQ-----------------------------------GHQ---------HLRS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHSENUDML-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSCCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLWA--EENITESCQURLPPAAUQIS-QQLIPTEVSTNU--------------RUKNKAKKUEUSSN---
----

>Rhinopithecus_bieti XM_017862241.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), transcript variant X1, mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSFCKQPPAWSIRDQDPMLDSNGSVTVVALLQASUYLCILQASKLEDLRVKLEKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGLLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKGISLATVDETVE---APQL--------------------HY--------------------H---HEHH-H-
--------NQ-----------------------------------GHQ---------HLRS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHSENSDML-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLWA--EENITESCQURLPPAAUQIS-QQLIPTEVSTNU--------------RUKNKAKKUEUSSN---
----
>Chlorocebus_sabaeus XM_007961488.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSFCKQPPAWSIRDQDPMLDSNGSVTVVALLQASUYLCILQASKLEDLRVKLEKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGRLVYHLGLPFSFLTFSYVEEAIKIVYCEKKCGNCSLTTL--
KDEDFCKSVSLATVDEAVE---APQP--------------------HY--------------------H---HEHH-H-
--------NQ-----------------------------------GHQ---------HLGS---SKLSEN----
QQPGAPDAPT-----HPA-PPDL---------HHHHKHK-----------GQHRQ-----GHPESUDMP-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLLA--EENITESCQURLPPAAUQIS-QQLIPTEVSTNU--------------RUKSKAKKUEUSSN---
----
>Papio_anubis XM_009208343.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
transcript variant X1, mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSFCKQPPAWSIRDQDPMLDSNGSVTVVALLQASUYLCILQASKLEELRVKLEKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGLLVYHLGLPFSFLTLPYVEEAIKIVYCEKKCGNCSLTTL--
KDEDFCKSVSLATVDETVE---APQP--------------------HY--------------------H---HEHH-H-
--------NQ-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPESUDMP-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
DNLPSLCSUQGLLA--EENITESCQURLPPAAUQIS-QQLIPTEVSTNU--------------RUKSKAKKUEUSSN---
----
>Cercocebus_atys XM_012055298.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSFCKQPPAWSIRDQDPMLDSNGSVTVVALLQASUYLCILQASKLEELRVKLEKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGLLVYHLGLPFSFLTLPYVEAAIKIVYCEKKCGNCSLTTL--
KDEDFCRSVSLATVDETVE---APQP--------------------HY--------------------H---HEHH-H-
--------NQ-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPESUDMP-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLLA--EENITESCQURLPPAAUQIS-QQLIPTEVSTNU--------------RUKSKAKKUEUSSN---
----
>Macaca_nemestrina XM_011750911.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSFCKQPPAWSIRDQDPMLDSSGSVTVVALLQASUYLCILQASKLEELRVKLEKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGLLVYHLGLPFSFLTLPYVEEAIKIVYCEKKCGNCSLTTL--
KDEDFCKSVSLATVDETVE---APQP--------------------HY--------------------H---HEHH-H-
--------NQ-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPESUDMP-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLLA--EENITESCQURLPPAAUQIS-QQLVPTEVSTNU--------------RUKSKAKKUEUSSN---
----

>Colobus_angolensis XM_011954472.1 PREDICTED: palliatus selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSFCKQPPAWSIRDQDPMLDSKGSVTVVALLQASUYLCILQASKLEDLRVKLEKEGYSNISYIVVNHQGISSRLKYPHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGLLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKSVSLATVDGTVE---APQL--------------------HH--------------------Y---HEHH-H-
--------NQ-----------------------------------GHQ---------HLGS---SELPEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPENRDML-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EENITESCQURLPPAAUQIS-QQLIPTEVSTNU--------------RUKNKAKKUEUSSN---
----
>Mandrillus_leucophaeus XM_011966496.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SPFCKQPPAWSIRDQDPMLDSNGSVTVVALLQASUYLCILQASKLEELRVKLEKEGYSNISYIVVNHQGISSRLKYTHLK
NKVSEHIPVYQQEENQTDVWTLLNGSKDDFLIYDRCGLLVYHLGLPFSFLTLPYVEEAIKIVYCEKKCGNCSLTTL--
KDEDFCKSVSLATVDETVE---APQP--------------------HY----------------------H---HEHH-H-
--------NQ-----------------------------------GHQ---------HLGS---SELSEN----
QQPGAPDAPT-----HPA-PPGL---------HHHHKHK-----------GQHRQ-----GHPESUDMP-GS-EGL----
---Q--HLQ-KKLURK---RCINQLLCKLPKDSE---LAPRSUCCHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLLA--EENITESCQURLPPAAUQIS-QQLIPTEVSTNU--------------RUKSKAKKUEUSSN---
----
>Callithrix_jacchus NM_001199928.1 selenoprotein P (SELENOP), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSSCKHPPAWSIRDQDPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYIIVNHQGLSSQLRYTHLK
NQVSEHIPVYQQEENQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCPLTTL--
NDEDFCKNVSLATVNKTTE---APQP--------------------HH----------------------H---HKHH-H-
--------NH-----------------------------------RHQ---------HLGS---SELSKN----
QQPGAPDAPT-----HLT-PLDL---------YHHHKHK-----------GQHRQ-----GHPENUYMP-GS-EGL----
---Q--HPR-NKLUQR---RCINQLLUKLPKDSE---LAPRSUCUHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EENITESCQURLPPAAUQTS-QQLIPTEASTNU--------------SUKNKAKKUECSSN---
----
>Aotus_nancymaae XM_012433842.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRSLGLALALCLLPSGGTESQDQ-
SSLCKQPPAWSIRDQDPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVIINHQGLSSQLRYTHLK
NHVSKHIPVYQQEENQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKNVSLATVNKTTE---APQP--------------------HH----------------------H---HKHH-Q-
--------NH-----------------------------------GHQ---------HLGS---SELSKN----
KQPGAPDAPT-----HLT-PSDL---------HHHHKHK-----------GQHRQ-----GHPENUYVP-GS-EGL----
---Q--HPR-NKLUQK---RCINQLLUKLPKDSE---LAPRSUCUHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EENITESCQURLPSAAUQTS-QQLIPTEASTNU--------------SUKNKAKKUEUPSN---
----
>Saimiri_boliviensis XM_003925891.2 PREDICTED: boliviensis selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRSLGLALALCLLPAGGTESQDQ-
SSLCKQPPAWNIRDQDPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYIIVNHQGLSSQLRYTHLK
NQVSEHIPVYQQEENQPDVWALLNGNKDDFLIYDRCGRLVYHLGLPFSFLTFPYVEEAIKIAYCEKKCGNCSLTTL--
KDEDFCKNVSLATVNKTTE---APQP--------------------HH----------------------H---HKHH-H-
--------NH-----------------------------------GHQ---------HLGS---SELSKN----
EQPGAPDAPT-----HLT-SPDL---------HHHHKHK-----------GQHRQ-----GHPENUYMP-GS-EGL----
---Q--HPQ-NKLUQK---RCINQLLUKLPKDSE---LAPRSUCUHCRHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLRA--EETITESCQURLPPAAUQTS-QQLIPTEASTNU--------------SUKNKAKKUEUPSN---
----

>Acinonyx_jubatus XM_015067567.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), transcript variant X1, mRNA
MWKSLGLALALCLLPWGRTESQGQ-
SSFCKQPPAWSIRDQNPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEQAGYLNISYVVVNHQGLSSRLKYMHLK
NKVSEHIPVYQQEENETDVWTLLNGKKDDFFVYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLMTP--
EDEDFCKIVSSATVGNTTE---APQPHHHHD-----HH--------HH--------------------H---HHHN-H-
--------EH----------------------------------GHQ---------HHGN---GELAEN----
QQPETPDVPG-----HPP-SQVP---------HNHHKHK-----------DHQRQ-----GHPEDUDMPAGS-ESL----
---QLSVPP-KKLURK---GCINQLHCKLPKDSE---LAPSSUCUHURHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLWA--EENVIESUQURLPPAAUHAI-QQPKPTEASTNU--------------SUENKAKMUKUPSY---
----
>Panthera_tigris XM_007095428.2 PREDICTED: altaica selenoprotein P, plasma, 1 (SEPP1), transcript variant X2, mRNA
MWKSLGLALALCLLPWGRTESQGQ-
SSFCKQPPAWSIRDQNPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEQAGYLNISYVVVNHQGLSSRLKYMHLK
NKVSEHIPVYQQEENETDVWTLLNGKKDDFFIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLMTP--
EDEDFCKIVSSATVGNTTE---APQPHHHHD-H-HHHH--------HH--------------------H---HHHN-H-
--------EH----------------------------------GHQ---------HHGN---GELAEN----
QQPETPDAPG-----HPP-SQVP---------HNHHKHK-----------HHQRQ-----GHPEDUDMPAGS-ESL----
---QLSVPP-KKLURK---GCINQLHCKLPKDSE---LAPSSUCUHURHL-VFEKTGS--AITUQCK-
ENLPSLCSUQGLWA--EENVIESUQURLPPAAUHAI-QQPKPTDASTNU--------------SUENKAKMUKUPSY---
----
>Panthera_pardus XM_019464277.1 PREDICTED: selenoprotein P (SELENOP), transcript variant X1, mRNA
MWKSLGLALALCLLPWGRTESQGQ-
SSFCKQPPAWSIRDQNPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEQAGYLNISYVVVNHQGLSSRLKYMHLK
NKVSEHIPVYQQEENETDVWTLLNGKKDDFFVYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLMTP--
EDEDFCKIVSSATMGNTTE---APQPHHHHD-H-HHHH--------HH--------------------H---HHHN-H-
--------EH----------------------------------GHQ---------HHGN---GELAEN----
QQPETPDAPG-----HPP-SQVP---------HNHHKHK-----------DHQRQ-----GHPEDUDMPAGS-ESL----
---QLSVPP-KKLURK---GCINQLHCKLPKDSE---LAPSSUCUHURHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLWA--EENVIESUQURLPPAAUHAI-QQPKPTEASTNU--------------SUENKAKMUKUPSY---
----
>Felis_catus XM_011286344.2 PREDICTED: selenoprotein P (SELENOP), transcript variant X1, mRNA
MWKSLGLALALCLLPWGRTESQGQ-
SSFCKQPPAWSIRDQNPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEQAGYLNISYVVVNHQGLSSRLKYMHLK
NKVSEHIPVYQQEENETDVWTLLNGKKDDFFVYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLMTP--
EDEDFCKIVSSATVGNATE---APQPHHHHD-----HH--------HH--------------------H---HHHN-H-
--------EH----------------------------------GHQ---------HHGN---GELAEN----
QQPETPDVPG-----HPP-SQVP---------HNHHKHK-----------DHQRQ-----GHPEDUDMPAGS-ESL----
---QLSVPP-KKLURK---GCINQLHCKLPKDSE---LAPSSUCUHURHL-IFEKTGS--AITUQCK-
ENLPSLCSUQGLWA--EENVIESUQURLPPAAUHAI-QQPKPTEASTNU--------------SUENKAKMUKUPSY---
----
>Canis_lupus NM_001115118.1 familiaris selenoprotein P (SELENOP), mRNA
MWRSLGLALALCLLPWGGAESQGQ-
SSFCKQPPAWSIRDQNPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGFLNISYVVVNHQGLSSQLKYMYLK
NKVSEHIPVYQQEENQTDVWTLLNGKKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKRAYCEEKCGNCSLTVL--
EDEEVCKMVSSGTVESTTE---APQPHPHD------HHL-------HH--------------------H---HHHH-H-
--------KH----------------------------------WHR-----LM--PHGN---DELSEN----
QQPEEPDVSE-----HPA-PQGL---------HRHHKHK-----------DHQRQ-----GHPDNUDMPAGS-ESL----
---QLSVPQ-NQLURK---GCRNQLLCKLPRDSG---LAPSSUCUHURHL-IFEKTGS--AITUQCK-
ETLPSLCSUQGLWA--EENVIESUQURWPPAAUQAS-QQLRPTEASTNU--------------SUKYKTKMUKULTY---
----

>Mustela_putorius XM_004737944.2 PREDICTED: furo selenoprotein P, plasma, 1 (SEPP1), transcript variant X1, mRNA
MWRSLGLALALCLLPVGGTESQGQ-
STMCKQPPQWSIGDQNPMLNSSGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYLNISYVVVNHQGLSSQLQYMNLK
NKVSEHIPVYQQEENQTDVWTLLNGKKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEEKCGNCSLTTL--
EAKDFCEMVSSPTVGNTTE---APQPHHHH--H-HHHH--------HL----------H---HHHH-H-
--------KH----------GHQ---------HHGN---KELSES----
QRPEAPDAAE-----YPA-PEGL---------HQHHKHK----------THQRQ-----GHPENUNLPAGS-EGL----
---QLSVPQ-KKLURK---GCINQLLCTLPKDSG---LAPSSUCUHURHL-IFEKTGS--AITUQCK-
ETLPSLCSUQGLWA--EENVIESUQURLPPAAUQAS-QQLQPTEASTIU----------SUKNKAKMUKUPSY---
----
>Ailuropoda_melanoleuca XM_002921714.2 PREDICTED: selenoprotein P (SELENOP), mRNA
MWRSLGLALALCLLPWGGTESQGQ-
SSFCKQPPAWSIRDQSPMLNSGGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYLNISYVVVNHQGLPSQLKYMHLK
NKVSEHIPVYQQEENQTDVWTLLNGKKDDFLVYDRCGRLVHHLGLPYSFLTFPYVEEAIKIAYCEEKCGNCSLMTQ--
EAEDFCKMVSSATVGTTTE---APPPHHHH------HH--------HH----------H---HRHH-H-
--------KH----------GHP---------HHGN---DELSED----
QQPEAEQARE-----HPA-PRGL---------HRHHKLK----------NHQRQ-----GHPENUDMPAGS-ENL----
---QLPVPQ-KQLURK---GCINRLLCKLPKVSG---LAPSSUCUHCRHL-IFEKTGS--AITUQCK-
ETLPSLCSUQGLLA--EENVIESUQURLPPAAUQAS-QQLQPTEASTNU----------SUKNKAKMUKUPSY---
----
>Ursus_maritimus XM_008692584.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRSLGLALALCLLPWGGTESQGQ-
SSFCKQPPAWSIGDQSPMLNSGGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYLNISYVVVNHQGLPSQLKYMHLK
NKVSEHIPVYQQEENQTDVWTLLNGKKDDFLVYDRCGRLVHHLGLPYSFLTFPYVEEAIKMAYCEEKCGNCSLMTQ--
EAEDFCKMVSSATVATTTE---APLPHH--------HH--------HH----------H---HQHH-H-
--------KH----------GHP---------HHGN---DELSED----
QQPETAQARE-----HPA-PRGL---------HRHHKLK----------NHQRQ-----GHPENUDMPAGS-ENL----
---QLPVPQ-KQLURK---GCINQLLCKLPKVSG---LAPSSUCUHCRHL-IFEKTGS--AITUQCK-
ETLPSLCSUQGLLA--EENVIESUQURLPLAAUQAS-QQLQPTEASTNU----------SUKYKAKMUKUPSY---
----
>Hipposideros_armiger XM_019630531.1 PREDICTED: selenoprotein P (SELENOP), mRNA
MWRSLGLVLALCLLPCGGTESQRQ-
SSFCKKPPAWSIGDQDPMLNSYSSVTVVALLQASUHFCLLQASSLEDLRVKLEKEGFSNISYVVVNHQGTHSRLNYMYLK
NKVSEHIPVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVYHIGWPFSILTFSYVEEAIKIAYCEKKCGNCSLMTL--
EDEDFCKNVSLVTVRNTTE---APQP----------RHH-H-
--------TH----------GHQ---------HVRN---GQPSEN----
QQPEVPNASE-----HPP-PPSL---------HHHHKLK----------HPHRQ-----DHPKNUHVP------F----
---LSSLSH-KKLUGK---RUINQLLUKLPKDSE---LAPRSUCUHCRHL-VFENTGS--AITUQCT-
ENLPSLCSUQGLWA--EENVIESUQURLPPAAUQAS-QQLQPTEASSNU----------SUKNKAEMUKUPSN---
----
>Rhinolophus_sinicus XM_019748547.1 PREDICTED: selenoprotein P (SELENOP), mRNA
MWRSLGFALALCLLPWGGTESHRQ-
SSFCKKPPVWRIGDENPMLNSDGSVTVVALLQASUSFCIRQASSLEDLRVKLEKEGFSNISYVVVNHQGFPSRLNYIHLK
SKVSEHIPVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPFSILHFLYVENAIKDAYCEDKCGNCSLKTL--
EDEDVCKNVSLGTVRNTSE---APQP----------HDHH-P-
--------TH----------GLQ---------HIPG---GQLSEN----
QQPEAPSASK-----QTA-LPGF---------HHHNKLK----------DPQRQ-----GHLKNUDVP------V----
---VSSLSH-KKLUGR---RCINQLLUKLLKDSD---LAPSSUCUHCRHV-VFEKTGS--ATTUQCK-
EKLPSLCSUQGLWA--EENVIESUQURLPPATUQER-QQLKPTEASSNU----------SUKNKAEMUKUPSN---
----
>Pteropus_vampyrus XM_011370668.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA

MWRSLGLALALCLLPWGGTESQEQ-
SSFCKQPPAWSIGDQDPMLNSYGSVTVVALLQASUYFCILQSSSLEDLRVKLEEEGFSNISYVIVNHQGISSRLKYTHLK
NKVSEHISVYQQEETQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPFSSLSFLYVEEAIKIAYCEDKCGNCSLTTL--
EDEGICKNVSLVTVEQTTE---TPQPHHHH--HRH-RHR-------HH----------HH-VHQHH-H-
--------KH----------EHQ---------HIRN---GQLSEN----
KQPEALSAPE-----HPP-PLGL---------HNHHKLK-----------DPQIH-----GNSNDCYTP-ES-ENL----
---QLSLSQ-KKLCGK---RCINPLLCKLLKDSK---LAPSSCCCHCRHL-IFEKTGP--AITUQCK-
EKLPSLCSUQGLWA--EENVIESUQURLPPAAUQAS-QQLKPTEARTNU----------SUKNKAKIUKUSSN---
----
>Rousettus_aegyptiacus XM_016133703.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWRSLGLALALCLLPWGGTESQEQ-
SSFCKQPPAWSIGDQDPMLNSYGSVTVVALLQASUYFCILQSSSLEDLRVKLEEQGFSNISYAIVNHQGISSRLKYMHLK
NKVSEHISVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPFSSLSFLYVEEAIKIAYCEDKCGNCSLTTL--
EDEGICKNVSLVTVEQTTE---TPQPHHHH--H-H-QHR-------HR----------H---HQHH-H-
--------KH----------EHQ---------HIRN---GQLSEN----
KQPEALSAPE-----NPP-PLGL---------HNHHKLK-----------DPQIH-----SHSNNCYMP-ES-ENL----
---QLSLSQ-KKLCGK---RCINPLLCKLLKDSK---LAPSSCCCHCRHL-VFEKTGP--ATTUQCK-
EKLPSLCSUQGLWA--EENVIESUQURLPPAAUQAS-QQLEPTEARTNU----------SUKNKAKMUKUPSN---
----
>Equus_caballus NM_001135605.1 selenoprotein P (SELENOP), mRNA
MWRSLGLALALCLLPWGGTESQGQ-
SSFCKQPPAWSIRDQDPMLNSYGSVTVVALLQASUYLCLLQASRLEDLRVKLEKEGYSNISYVVVNHQEISARLKYIHLK
NKVSEYIAVYQQEENQTDIWTLLNGSKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLMTL--
EDEDFCKTLSLATVEKTTE---DSQPHH----------HH----------H---HQHH-H-
--------KH----------GHQ---------HVGN---SQLSEN----
QQPEATGAPE-----HPP-PPGL---------HHHHKHK-----------GQQRR-----GHPENUDMP-GG-ESL----
---QLSLPQ-KKLUQK---GCINQLLCKMPKDSK---LAPSSUCUHCRHL-IFENTRS--AITUQCT-
ENLPSLCSUQGLWA--EENVIESCQURLPPAAUQPS-QQLKPTEASTNU----------SUKYKAAMUKUPSN---
----
>Equus_asinus XM_014855171.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRSLGLALALCLLPWGGTESQGQ-
SSFCKQPPAWSIRDQDPMLNSYGSVTVVALLQASUYLCLLQASRLEDLRVKLEKEGYSNISYVVVNHQEISARLKYIHLK
NKVSEYIAVYQQEENQTDIWTLLNGSKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLMTL--
EDEDFCKTLSLATVEKTTE---DSQPHH----------HH----------H---HQHH-H-
--------KH----------GHQ---------HVGN---SQLSEN----
QQPEATGAPE-----HPP-PPGL---------HHHHKHK-----------GQQRR-----GHPENUDMP-GG-ESL----
---QLSLPQ-KKLUQK---GCINQLLCKMPKDSK---LAPSSUCUHCRHL-IFENTRS--AITUQCT-
ENLPSLCSUQGLWA--EENVIESCQURLPPAAUQPS-QQLKPTEASTNU----------SUKYKAAMUKUPSN---
----
>Equus_przewalskii XM_008524571.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWRSLGLALALCLLPWGGTESQGQ-
SSFCKQPPAWSIRDQDPMLNSYGSVTVVALLQASUYLCLLQASRLEDLRVKLEKEGYSNISYVVVNHQEISARLKYIHLK
NKVSEYIAVYQQEENQTDIWTLLNGSKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEEAIKIAYCEKKCGNCSLMTL--
EDEDFCKTLSLATVEKTTE---DSQPHH----------HH----------H---HQHH-H-
--------KH----------GHQ---------HVGN---SQLSEN----
QQPEATGAPE-----H-P-PPGL---------HHHHKHK-----------GQQRR-----GHPENUDMP-GG-ESL----
---QLSLPQ-KKLUQK---GCINQLLCKMPKDSK---LAPSSUCUHCRHL-IFENTRS--AITUQCT-
ENLPSLCSUQGLWA--EENVIESCQURLPPAAUQPS-QQLKPTEASTNU----------SUKYKAAMUKUPSN---
----
>Sus_scrofa NM_001134823.1 selenoprotein P (SELENOP), mRNA
MWRGLGLALALCLLSWGGTESQGK-
SSFCEQPPGWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYIVVNHQGIASQLKYVYLK
SKVSEHIPVYQQEENQTDVWTLLNGNKDDFLIYDRCGLLVYHLGLPYSFLTFPYVEEAIKTVYCENKCGNCSLKTL--

KDEDFCKNVYLATEEKTTE---APQPHHHH------DH--------HH---------------------H---RHHH-H-
--------HH----------------------------------GHQ---------HLGN---GHLSEH----
PKPEAPDAPE-----QPP-PSGL---------HHHHGHK-----------GHQRQ-----GHSENUDMPAGS-ESL----
---QLSLPQ-KKLURR---GCISQLLCKFPKNSE---SALRSUCUHCRHL-IFEKTES--AVTUQCG-
ENLPSLCSUQGLLA--EENVIESUQURLPPAAUQAS-QQLNPAEASTKU--------------SUKNKAGRUKUPSN---
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>Balaenoptera_acutorostrata XM_007195534.1 PREDICTED: scammoni selenoprotein P,
plasma, 1 (SEPP1), mRNA
MWRGLGLALALCLLPTGGTESQGQ-
SSFCKQPPAWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQGISSRLKYVHLK
NKVSEHIPVYQQEENQTDVWTLLNGTKDDFLIYDRCGRLVYHLGLPYSFLTSSHVEDAIKTVYCESKCGNCSLKTL--
EDEGFCKNVSLATEEKTTE---APQPQP-----------------HP----------------------HPHP-H-
--------HH----------------------------------PHH---------HLED---GHLSEH----
PKPEAPDNPE-----HPP-PSGL---------HRHHRHR-----------GHQRQ-----GHSENUD-------TL----
---QLSLPQ-KKLURR---GCINQLLUKFPKDSE---SALSSUCUHCRHL-IFEKTGS--AVTUQCK-
ENLPSLCSUQGLLA--EEHVTESUQURLPPAACQAS-QQLNPTEASTKU--------------SUEKKAEMUTUPSN---
----
>Tursiops_truncatus XM_019930081.1 PREDICTED: selenoprotein P (SELENOP), mRNA
MWRGLGLALALCLLPTGGTESQGQ-
SSFCKQPPAWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQGISSRLSYVHLK
NKVSEHIPVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFSYVEDSIKSVYCESKCGNCSLKTL--
EYEDFCKNVSLATVEKTTE---APQP--------------------HH----------------------H---HHHH-H-
--HLEN---GHLSEY----
PKPEAPDNPE-----HPP-PSGL---------HRHHRHR-----------GHQRQ-----GHSENUD-------AL----
---QLSFPQ-KKLURS---GCINQLLUKFPKDSE---SALSSUUUHCRHL-IFEKTGS--AVTUQCK-
DNLPSLCSUQGLLA--EEHVTESUQURLPPAACHAT-QQLKPTEASTKU--------------SUEKKAEMUKUPSD---
----
>Pantholops_hodgsonii XR_318586.1 PREDICTED: selenoprotein P-like
(LOC102326138), misc_RNA
MWRGLGLALALCLLLTGGTESQGQ-
SSYCKQPPAWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQEISSRLKYVHLK
NKVSEHIPVYQQEEDQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFTYVEDSIKTVYCEDKCGNCSLKTL--
EDEDFCKNVSLATKEKTAE---ALQRHHHH--H-HHHRQ-------HP----------------------H---PHPH-P-
--------HP----------------------------------GHQ---------LQEN---AHLSES----
PKPDTPDTPE-----NPP-PSGL--------HHHHHRHK-----------GHQRQ-----GHSDNCDTPVGS-ENL----
---QLSLPQ-KKLUUK---RCINQLLUQFPKDSE---SALSSCCCHCRHL-VFEKIGS--AITUQCT-
ENLPSLCSUQGLLA--EENVIESUQURLPPAAUQAAGQQLNPTEASTKU--------------SUKNKAKMUKUPSN---
----
>Bubalus_bubalis XM_006067068.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWRGLGLALALCLLLTGGTESQGQ-
SSYCKQPPPWSIKDQEPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNVSYVVVNHQGIASRLKYVHLK
NKVSEHIPVYQQEENQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFTYVEDSIKTVYCEDKCGNCSLKTL--
EDEDICKNVSLATKEKTAE---ASQRHH--H---HHPH-P-
--------HH----------------------------------GHQ---------LHEN---AHLSES----
PKPDTPDTPE-----NPP-PSGL--------HHHHHRHK-----------GHQRQ-----GHSDNCDTPVGS-ESL----
---QLSLPQ-KKLURK---RCINQLLUQFPKDSE---SALSSCCCHCRHL-VFEKTGS--AITUQCT-
EKLPSLCSUQGLLA--EENVIESUQURLPPAAUQAAGQQLNPTEASTKU--------------SUKNKAKMUKUPSN---
----
>Bos_mutus XM_005894868.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWRGLGLALALCLLLTGGTESQGQ-
SSYCKQPPPWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQGISSRLKYVHLK
NKVSEHIPVYQQEENQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFTYVEDSIKTVYCEDKCGNCSLKAL--
EDEDVCKNVFLATKEKTAE---ASQRHH------------------HP----------------------H---PHPH-P-
--------HH----------------------------------GHQ---------LHEN---AHLSEP----

PKPDTPDTPE-----NPP-PSGL--------HHHHHRHK-----------GPQRQ-----GHSDNCDTPVGS-ESL----
---QPSLPQ-KKLURK---RCINQLLUQFPKDSE---SALSSCCCHCRHL-VFEKTGS--AITUQCT-
EKLPSLCSUQGLLA--EENVIESUQURLPPAAUQAAGQQLNPTEASTKU--------------SUKNKAKMUKUPSN---
----
>Bos_indicus XM_019982873.1 PREDICTED: selenoprotein P (SELENOP), mRNA
MWRGLGLALALCLLLTGGTESQGQ-
SSYCKQPPPWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQGISSRLKYVHLK
NKVSEHIPVYQQEENQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFTYVEDSIKTVYCEDKCGNCSLKAL--
EDEDVCKNVFLATKEKTAE---ASQRHHHP--H-PHSHP-HPHPHPHP----------------------H---PHPH-P-
--------HH-----------------------------------GHQ---------LHEN---AHLSES----
PKPDTPDTPE-----NPP-PSGL--------HHHHHRHK-----------GPQRQ-----GHSDNCDTPVGS-EXL----
---QPSLPQ-KKLURK---RCINQLLUQFPKDSE---SALSSCCCHCRHL-VFEKTGS--AITUQCT-
EKLPSLCSUQGLLA--EENVIESUQURLPPAAUQAAGQQLNPTEASTKU--------------SUKNKAKMUKUPSN---
----
>Bos_taurus NM_174459.3 selenoprotein P (SELENOP), mRNA
MWRGLGLALALCLLLTGGTESQGQ-
SSYCKQPPPWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQGISSRLKYVHLK
NKVSEHIPVYQQEENQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFTYVEDSIKTVYCEDKCGNCSLKAL--
EDEDVCKNVFLATKEKTAE---ASQRHHHP--H-PHSHP-HPHPHPHP----------------------H---PHPH-P-
--------HH-----------------------------------GHQ---------LHEN---AHLSES----
PKPDTPDTPE-----NPP-PSGL--------HHHHHRHK-----------GPQRQ-----GHSDNCDTPVGS-ESL----
---QPSLPQ-KKLURK---RCINQLLUQFPKDSE---SALSSCCCHCRHL-VFEKTGS--AITUQCT-
EKLPSLCSUQGLLA--EENVIESUQURLPPAAUQAAGQQLNPTEASTKU--------------SUKNKAKMUKUPSN---
----
>Ovis_aries XM_015101311.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
transcript variant X1, mRNA
MWRGLGLALALCLLLTGGTESQGQ-
SSYCKQPPAWSIKDQDPMLNSYGSVTVVALLQASUYLCILQASRLEDLRVKLEKEGYSNISYVVVNHQEISSRLKYAHLK
NKVSEHIPVYQQEEDQPDVWTLLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFTYVEDSIKTVYCEDKCGNCSLKTQ--
EDEDFCKNVSLATKEKTAE---ASQRHH---H---PHPH-P-
--------HH-----------------------------------GHQ---------LHEN---AHLSES----
PKPDTPDTPE-----NPP-PSGL--------HHHHHRHK-----------GHQRQ-----GHSDNCDTPVGS-ENL----
---QLSLPQ-KKLURK---RCINQLLUQFPKDSE---SALSSCCCHCRHL-VFEKTGS--AITUQCT-
ENLPSLCSUQGLLA--EENVIESUQURLPPAAUQAAGQQLNPTEASTKU--------------SUKNKAKMUKUPSN---
----
>Miniopterus_natalensis XM_016223709.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), transcript variant X2, mRNA
MWRSLGLALALCLLPWGGTESQGE-
SATCKRPPAWSIGDQDPMLDSYGSVTVVALLQASUPFCIMQAHSLEDLRVKLEKEGFSNISYIVVNHQGISSRSKYMDLK
SKVSEHIPVYQQEENQTDVWTLLNGNKDDFLVYDRCGRLVHHLGLPFSILNFPYVEEAIKTAYCRKNCGNCSFTTL--
EDEDFCKNASLAFEKSTTE---APGPQPHH--HNHHHHH-------HH----------------------H---HRHHYH-
--------RH-----------------------------------GHE---------HTGI---GQLADN----
QQPEAPNESE-----PAP-SPGP---------LNHQKLK-----------GPQGQ-----GHPVHUDVS--G-ETL----
---PSSSSQ-RKLUGR---KCINQLLUQLPKDSE---LAPSSUCUHCRHL-VFEHTGS--AITUQCR-
ESLPSLCSUQGLWA--EANVIESUQURLPPTAUQVG-QQPEPTEASTSU--------------SUKTEGEMUQUPSN---
----
>Myotis_davidii XM_006774560.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWRSLGIALALCLLPWGGTESQGQ-
SPFCKPPPAWSIGEQDPMLSSSGSVVLVALLQASUFFCLRQASSLEDLRVKLEKEGFSSISYVVVNHQGLPARLRYNLLK
NEVSEHITVYQQEENQTDVWTLLNGNKDDFLIYDRCGRLVYHLSLPLSILEFPYVEQAIKIAYCEEKCGNCSLTTL--
EDEDFCKNVSLASVSKTTE---APEPH-------------------HH----------------------H---HHHH-H-
--------KH-----------------------------------GHQ---------HIPI---AQLSED----
QQPEAPNASE-----RVP-FPGL---------HHHLKLK-----------SPQRQ-----GHPVRUDEP-GS-ESL----
---PLSSPQ-KKLUGK---RCINQLLUKLPRESE---SAASSUCUHCRHL-VFEHTGS--AVTUQCR-

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EALPSLCSULGLWA--EENVIESUQURLPPAAUQAG--QLEPTKASNIU--------------SUKTEAEMUQUPSN---
--------
>Sarcophilus_harrisii XM_012541412.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWRGLALALALCLLPYGGTESQVQ-
SARCKEPPKWHIRGEYPMLNSLGRVTVLALLQASUYLCILQASRLEDLRVKLEREGFSNISYIVVNHQGNPSQLNFKELK
DKVSENITVYQQEVNQQDVWTVLNGSKDDFLIYDRCGRLVYHLGLPYTFLTFSYVEEAIKVAYCEKSCGNCSYTTI--
DDESFCKNASSVAEEEPTR---TPTSHPPH------HHL-------RH--------------------H---HDHH-H-
------HHHH----------------------------------HQH---------HRHG---HQPTEN----
KKPEDSETAA----DVHS-AQGL---------HHHHESTH----------QQHRH----TDHPGSQENP-DG-GAL----
---ELSAPR-KKLURKGGSGCANHLLUNLSQSSE---SAPRSUCUHCRHL-IFEHLGN--
SVTUHCKGTTLPSSCSUQGQRA--EENITESUQURLPPAAUYPS-QQLEPTEASTAU--------------
KUKNKAGRUKUSTN-----------
>Monodelphis_domestica XM_016431589.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWRGLGLALALCLLPGGGAESQVQ-
STRCKDAPKWHIGDQDPMQDSLGRVTVVALLQASUYLCILQASRLEDLRMKLEREGFSNISYVVVNHQGNASRLNIKELQ
DQVSKNITVYQQEQNQKDVWTTLNGNKDDFLIYDRCGRLVYHLGLPHTFLSFSYVEDAIKSAYCEKACGNCSYTTL--
DDEGFCKNVSLVAEEETIT---TSLHHHYHPPHRHGHHP-------HH----------------------H---HGHH-
HP----PPHRHH----------------------------------QHH---------HRLG---HPPSEN----
DKPEGSEGAV----HSHP-TQGL---------HHHHEAAG----------PQHRH----TDHPESQENP-EI-SVS----
---ELSVPR-KKLURKGISGCANQLLUNLSQSSG---SAPRSUCUHCRHL-IFERLGN--
AVTUHCKGTTLPSSCSUQGQRA--EENITESUQURSPPAAUHPG-QQLEPTETRNAU--------------
KUKNNAGRUKUSTN-----------
>Alligator_sinensis XM_006026705.2 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWAGLGLALVLCLLPGGGTESQGS-
SAHCKEPPEWYIAGQDPMLNSRGSVTVVALLQASUHLCLLQASSLEDLRVKLDNDGLVNISYMVVNHQGITSQEKIHLLR
KEVSEHIVVYQQDENQPDVWTTLNGNKDDFLIYDRCGRLVYHLELPYTFLSFPYVEESIKIAYCEQNCGNCSYMTP--
DVEEVCNNISKPADEDPAEI--TPEQHSHH--------S-------HH----------------------PN-QHRHH---
--------GH----------------------------------GHH---------HREE---DHLSED----
QNQQARAQ------RHHS-PGNN---------RRHNRVL-----------GRNRQGQA-GSQERVEAVP-QR-EVL----
---EIPLQS-KRLUKKGNASCKNQLTUNFLKASE---STSSSUCUHURHL-LFEEVGK--AATUHCR-
GTLPDTCRUQGQLL--AENITESUQURLLPAAUQSL--AEREHETSDNU--------------QUQGKPGNUAUKTN---
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>Alligator_mississippiensis XM_006268909.3 PREDICTED: selenoprotein P (SELENOP),
mRNA
MWAGLGLALVLCLLPEGGTESQGS-
SAHCKEPPEWYIAGQDPMLNSRGSVTVVALLQASUHLCLLQASSLEDLRVKLENDGLVNISYMVVNHQEITSQEKIHLLR
KEVSEHIVVYQQDENQPDVWTTLNGNKDDFLIYDRCGRLVYHLELPYTYLSFPYVEESIKIAYCEQNCGNCSYMMP--
DVEEVCNNISKPVDEKPVEI--TPEQHSHH--------S-------HH----------------------PN-QHRHH---
--------GH----------------------------------GHH---------HREE---DHLSED----
QNQQARAQ------RHHS-PGNN---------RRHNRVL-----------GRNRQGQA-GSQERVEAVP-QR-EVL----
---EIPLQS-KRLUKKGNASCKNQLTUNFLKASE---STSSSUCUHURHL-LFEEVGK--AATUHCR-
GTLPDTCRUQGQLL--LENITESUQURLLPAAUQSL--AEREHETSDNU--------------QUQGKPGNUAUKTN---
--------
>Gavialis_gangeticus XM_019517912.1 PREDICTED: selenoprotein P (SELENOP), mRNA
MWAGLVLALVLCLLPEGGTESQGS-
SARCKEPPEWYTAGQDPMLNSRGSVTVVALLQASUHLCLLQASSLEDLRVKLENDGLVNISYVVVNHQGITSQEKIHLLR
KEVSEHIVVYQQDENQPDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFPYVEESIKIAYCEQNCGNCSYMTP--
DVEKVCNNINKPADEDPAEI--TPEQHNHH--------S-------HQ----------------------PN-QHRHH---
--------GH----------------------------------GHH---------HREE---DQLSED----
QNQQAHAQ------RHHS-PGNN---------RRHNRVL-----------GRNRQGQA-GSQERVEAVP-QR-EVL----
---EIPLQS-KRLUKKGNASCKNQLTUNFLKGSE---STSSSUCUHURHL-LFEEVGK--AATUHCR-
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GTLPDTCRUQGQLL--AENITESUQURLLPAAUQSL--AEREHETSDSU--------------QUQGKTGNUAUKTN---
--------
>Crocodylus_porosus XM_019532012.1 PREDICTED: selenoprotein P (SELENOP), mRNA
MWAGLGLALVLCLLPEGGTESQGS-
SARCKEPPEWYIAGQDPMLNSRGSVTVVALLQASUHLCLLQASSLEDLRVKLENDGLVNISYVVVNHQGITSQEKIHLLR
KEVSEHIVVYQQDENQPDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFLYVEESIKIAYCEQNCGNCSYMTP--
DVEKVCNNIDKSTDEEPAEI--TPEQHNHH--------S-------HQ----------------------PN-QHRHH---
--------GH-----------------------------------GHH---------HREE---DQLSED----
QNQQAHAQ------RHHS-PGNN---------RRHNRVL-----------GRNRQDQA-GSQERVEAVP-QR-EVL----
---EIPLQS-KRLUKKGNASCKNQLTUNFLKASE---STSSSUCUHURHL-LFEEVGK--TATUHCR-
GTLPDTCRUQGQLL--AENITESUQURLLPAAUQSL--AEREHETSDNU--------------QUQGKTGNUAUKTN---
--------
>Chelonia_mydas XM_007052828.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWGGLGLALVLCLLPGGGTESQGS-
SAHCKEPPEWQIEARSPMQNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYMVVNHQGIHSQLKIHTLK
EKVSENIIVYQQDENQTDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLTFPYVEESIKIAYCEYKCGNCSYMTP--
VVEDICKNISQTADEKTTEE--APKPHNNH--------S-------HH----------------------HN-QHRHH---
--------GH-----------------------------------RHH---------HQEG---DQLSED----
QTQQDSGQAP----RHHS-HQSS---------QRYNRVV-----------GRNRQGQK-GNQPNVESAP-QR-EVG----
---KVPTQV-KRPUKKGTASUNNQLTCSWQKVSQ---SISSSUCUHCRHL-LFEESGN--AATUHCQ-
EELPSSCRUHGQLL--AENITESUQURLPTAAURSP--AASEHETSDTU--------------QUDRKTGNUAUKAN---
--------
>Coturnix_japonica XM_015848683.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWAGLGLALVLCLLPGGGAESQ-----
RCQEPPEWRIGEESPMLDARGSVAVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQSPHSQKKFHLLQES
VSDHIAVYQQDDHQADVWMTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEEAIKIAYCENKCGNCSYTDP--
DVDNVCENITKKEEENLAGIEPEPEPSGQH--------S-------HH----------------------HHQLHRHR---
---------H-----------------------------------HHH---------HREG---GRHSKN----
QNHPAPSESQ----RRHP-QHGR-----------RHRVF-----------NHNRHDQI-GSRDQVETLP-PG-EGV----
---EVVPRV-TKLUKKGKTICKNQLTUNWQTASD---STTSSUCCHCRHL-LFEELGN--SITUQCR-
GALPNSCRUHGQLL--AEDITESUQURLLTAAUESA--AAGGSETDDTU--------------QUQERAGNUAUKTN---
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>Gallus_gallus NM_001031609.2 selenoprotein P-Z (SELENOPZ), mRNA
MWAGLGLALVLCLLPGGGTESQ-----
RCQEPPEWHIGEESPMLNARGSVAVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQSPHSQKKFHLLQES
VSDHITVYQQDDHQADVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEEAIKIAYCENNCGNCSYTEP--
DIDNICENITKKEDENLAGIEPEPEPSGQH--------S-------HH----------------------HHQLHRHR---
---------H-----------------------------------HHH---------HREG---GRHSKT----
QNHQAPSESQ----RRHP-HNGR-----------RHRVF-----------NHNRHDQI-GSHEQVETLP-PG-EGV----
---ENLPRV-TKLUKKGKTICKNQLTUNWQTASD---STTSSUCCHCRHL-LFEELGN--SITUQCR-
GALPNSCRUHGQLL--AEDITESUQURLLTAAUESA--AGGGSETSDTU--------------QUQERAGNUAUKTN---
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>Apteryx_australis XM_013961087.1 PREDICTED: mantelli selenoprotein P, plasma, 1
(SEPP1), mRNA
MWAGLGLILSLCLLPGGGAEIQ-----
NCKEPPEWHIGEENPMLDSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGTQSHRKFHLLKES
VSDYITVYQQDEQQADVWTTLNGNKDDFFIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYTEP--
DIDDICENITKKADEKLAEV--EPKPTGQQ--------S-------HQ----------------------HH-LHRHR---
-----------------------------------------HH---------HRGG---NHHSEN----
ANQQAPAETP----RRRPSQSGW-----------HHRVF-----------GRNRHDQR-GSQEQAETLP-QG-EGA----
---EFLTQD-KKLUKKGKTNCKNQLTUNWQKASD---STSSSUCUHCRHL-LFEELGN--SVTUQCH-
GALPNSCRUHGQLL--AEDVTESUQURLLSAAUQSS--AARASEATDTU--------------QUQEKAGNUAUETN---
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>Struthio_camelus XM_009669416.1 PREDICTED: australis selenoprotein P, plasma, 1 (SEPP1), mRNA
MWAGLGLVLSLCLLPGGGAEIQ-----
NCKEPPEWHIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGTQSHRKFHLLKES
VSDCITVYQQDEQQADVWTTLNGNKHDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYTEP--
YIDDICENITKKADEKLAEI--EPKPAGQH--------S-------HR----------HH-LHRHR---
----------HH---------HHEE---SHHSKN----
ENQQAPDESP----SRHS-XS-R-----------RHRVF-----------GHNRHDQR-GNQEPLETLP-QG-EGA----
---ESHTQD-KKLUKKRKASCKNQLTUTWQKASD---SASSSUCUHCRHL-LFEELRH--SVTUQCH-
GALPNSCRUHGQLL--AEDITESUQURLLSAAUQSP--AA--RETSDTU--------------QUQEEEGKUAUETN---
----
>Columba_livia XM_005514553.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWAGLGLVLVLCLLPGGGTESQ-----
NCKEAPEWRIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVRLKDEGLVNISYVVVNHQGTHSQRKFHLLKES
VSENITVYQQDEQQDDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEEAIKIAYCENKCGNCSYTEP--
DIDGICENITKTAEEELAEI--APEPAGQH--------S-------HH----------HN-LHRHR-H-
--------HH----------HHH---------HREG---GRHSKN----ENHQA-
SESH----RHHS-HSGR-----------RHRVF-----------GRNRHDQT-GSHEQVDTVP-PG-EGV-------E-
ITQD-KKLUKKGKTSCKNQLTUNWQTASD---STSSSUCCHCRHL-LFEEVGN--SVTUQCR-GALPNSCRUHGQLL--
AEDITESUQURLLTAAUQSP--AAGGSETSDTU--------------QUQENARNUAUKTN-----------
>Calidris_pugnax XM_014965085.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWAGLGLVLALCLLPGGGAETQ-----
NCKEPPEWHIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGAHSQRKFHLLKES
VSDYITVYQQDEQQPDVWTTLNGSKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKVAYCESKCGNCSYTEP--
DIDGVCENITKSVDEKLAEI--EPKPSGHH--------S-------HH----------HR-GHGHG-
HG----QGHRHR----------HHH---------HRGG---SRHSKN----
EDHQASSESH----RHHP-HSGR-----------RHRVF-----------GHSRHDQA-GSQEQVDPAP-PG-ESV----
---E-IPQD-KRLUKKGKTSCKNQLTUNWQTASD---SALSSUCCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLS--AEDITESUQURLLTAAUQSP--AAGASEASDTU--------------QUEEKARNUAUETN---
----
>Haliaeetus_albicilla XM_009918235.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1), mRNA
MWAGLGLVLALCLLPGGGTEIQ-----
NCKEAPEWRIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNIWYMVVNHKGTYSQRKFHLLKES
VSDHITVYQQDEEQADVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYTEP--
DIGGICENITKKAEEKLAEL--EPKPTGQH--------S-------HH----------HN-LHRHR---
---------Q----------QHH---------HREG---SRHSKN----
ENHQAPSETQ----RHHP-HSGR-----------RHRVF-----------GHNRHDQT-GSHAQVDTVP-QG-ESV----
---E-ITQD-KKLUKKGKSSCKNQLTUNWQTASD---STSSSUCCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLS--AEDITESUQURLLTAAUQSP--AAGASETSDTU--------------QUQEKARNUAUKTN---
----
>Aquila_chrysaetos XM_011594332.1 PREDICTED: canadensis selenoprotein P, plasma, 1 (SEPP1), mRNA
MWAGLGLVLALCLLPGGGTEIQ-----
NCKEAPEWRIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNIWYMVVNHKGTYSQRKFHLLKES
VSDHITVYQQDEEQADVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYTEP--
DIGGICENITKKAEEKLAEL--EPKPTGQH--------S-------HL----------HN-LHRHR---
---------Q----------QHH---------HREG---SRHSKN----
ENHQAPSETQ----RHHP-HSGR-----------RHRVF-----------GHNRHDQT-GSHAQVDTVP-QG-ESV----
---E-ITQD-KKLUKKGKNSCKNQLTUNWQTASD---STSSSUCCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLS--AEDITESUQURLLTAAUQSP--AAGASETSDTU--------------QUQEKARNUAUETN---
----
>Aptenodytes_forsteri XM_009274533.1 PREDICTED: selenoprotein P (SELENOP), mRNA

MWAGLGLVLALCLLSGAGTEIQ-----
NCKEPPEWRIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGTYSQRKFHLLKES
VSDYITVYQQDEQQADVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYMEP--
EIDGLCENITKKADEKLAEI--EPKPTGQH--------S-------HH--------------------HN-LHRHR---
---------Q----------------------------------HHH---------HREG---SHHSKN----
ENHQAPSETQ----RHHP-HSGR-----------RHRVF-----------GHSRRDQA-DSQEQVDSVP-PG-ESV----
---E-ITQD-KKLUKKGKTSCKNQLTUNWQTASD---STSSSUCCHCRHL-LFEELGN--SVTUWCH-
GALPNSCSUHGQLS--AEDITESUQURLLTAAURSP--A--ASETSDTU--------------QUQEKARNUAUKTN---
----
>Pygoscelis_adeliae XM_009324422.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWAGLGLVLALCLLSGGGTEIQ-----
NCKEPPEWRIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGTYSQRKFHLLKES
VSDYITVYQQDEQQADVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYMEP--
EIDGICENMTKKADEKLAEV--EPKPTGQL--------S-------HH--------------------HN-LHRHR---
---------Q----------------------------------HHH---------HREG---SHHAKN----
ENRQAPSETQ----RHHP-HSGR-----------RHRVF-----------GHNRRDQTDDSHEQVDTVP-PG-ESV----
---E-ITQD-KKLUKKGKTSCKNQLTUNWQTASD---PTSSSUCCHCRHL-LFEELGN--SVTUQCH-
GALPNSCSUHGQLS--AEDITESUQURLLTAAUQSP--A--ASETRDTU--------------QUQEKARNUAUKTN---
----
>Falco_cherrug XM_005433749.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWAGLGLVLALCLLPGGETESQ-----
NCKEAPEWYIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGAHSQKKVHLLRES
VSEHITVYQQDEGQADVWTNLNGSKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYMEA--
DIDGICENITKKADEKLAEI--EPKPTSQR--------S-------QH--------------------HN-LHRHR---
---HHH---------HHH-----HHSKN----
ANHQAPPETQ----RHHP-HSGR-----------RHRVF-----------GHNRHDQT-GSHEQV--------ESV----
---E-TTPD-KKLUKKGKTSCKNSLTUNWQTASD---STSSSUCCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLS--AEDITESUQURLLTAAUQSP--AAEASETSDTU--------------QUQEKARNUAUKTN---
----
>Falco_peregrinus XM_005241968.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWAGLGLVLALCLLPGGETESQ-----
NCKEAPEWYIGEENPMLNSRGSVTVVALLQASUYLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGAHSQKKVHLLRES
VSEHITVYQQDEGQADVWTNLNGSKDDFLIYDRCGRLVYHLGLPYSFLSFQYVEESIKIAYCENKCGNCSYMEA--
DIDGICENITKKADEKLAEI--EPKPTSQR--------S-------QH--------------------HN-LHRHR---
---------H----------------------------------HHH---------HHH-----HHSKN----
ANHQAPPETQ----RHHP-HSGR-----------RHRVF-----------GHNRHDQT-GSHEQV--------ESV----
---E-TTPD-KKLUKKGKTSCKNSLTUNWQTASD---STSSSUCCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLS--AEDITESUQURLLTAAUQSP--AAEASETSDTU--------------QUQEKARNUAUKTN---
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>Manacus_vitellinus XM_008932066.2 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWAGLGLVLALCLLPGGGTEVQ-----
NCQEPPEWRIGEENPMLNSRGTVTVVALLQASUFLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGAQSRRKFHLLNGS
VSDYIAVYQQEEQQDDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEEAIKIAYCGNKCGNCSYTEP--
DIDDVCENITRKAD-KLEER--EPKPTGQH--------P-------HH--------------------HN-LHRHG-H-
--------HH----------------------------------RHH---------HRHG---SHHPKN----
ENGQTSSETE----RHHP-HSGW-----------HHRVF-----------GHHRHDHL-GSQEQVDTAP-PG-ESV----
---K-ITQE-KKLUKKGKNRCKNQLTUNWQTALD---STSSSUCCHCRHL-LFEELGN--SVTUQCH-
GALPNSCRUHSELA--AEDITESUQURLLSAAUQSP--AAGESETSDTU--------------QUQENARNUAUKTN---
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>Lepidothrix_coronata XM_017811269.1 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA

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MWAGLGLVLALCLLPGGGTEVQ-----
NCQEPPEWHIGEENPMLNSRGTVTVVALLQASULLCLLQASRLEDLRVKLENEGLVNISYVVVNHQGAQSRRKFHLLKGS
VSDYITVYQQEEQQDDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEEAVKIAYCGNKCGNCSYTEP--
DIDDVCENITRKAD-KLEER--EPKPTSQH--------P-------HH----------HN-LHRHG-H-
--------HH----------RHH---------HRHG---SHRPKN----
ENGQTSSETE----RHHP-HSSW-----------HHRVF-----------GHHRHDHL-GSQEQVDTAP-PG-ESV----
---K-ITQE-KKLUKKGKNRCKNQLTUNWQTASD---LTSSSUCCHCRHL-LFEELGN--SVTUQCH-
GALPNSCRUHSELA--AEDITESUQURLLSAAUQSP--AAGESETSDTU--------------QUQENARNUAUKTN---
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>Sturnus_vulgaris XM_014884265.1 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
mRNA
MWAGLGLVLALCLLPGGGTESQ-----
NCQEAPEWHVGEEDPMWNSRGSVTVVALLQASUSLCLRQASSLEDLRVKLENEGLVNISYVVVNHQGAQSRREFHLLKER
VSDYITVYQQDEQQEDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEESIKIAYCENKCGNCSYTDPDIDIDS
VCENITKKAGDELSEV--EPKLTGQH--------S-------HP----------------------N-LHRHG-HH----
-HRRHH----------HHH---------HHRG---SRDPRR----ENHQAASETE-
---RHHP-HSGW-----------RHRLF-----------GQHRNDQI-GSQEHVDPVP-PE-EIV-------E-IAQD-
RKLRKKGKNSCKNQLTUNWQTGSD---STSSSUSCHCRHL-LFEELGN--SVTUQCR-GALPNSCRUHGQLA--
AEDITESUQURLLSAAUHSP--PAGASETSDTU--------------QUQEKARNUSUKTN-----------
>Ficedula_albicollis XM_005060583.2 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), transcript variant X1, mRNA
MWAGLGLVLALCLLPGGGTESQ-----
NCQEPPAWRIGEEDPMWNSRGSVTVVALLQASUSLCLQQASSLEDLRVKLENEGLVNISYVVVNHQGAQSQREFHLLKER
VSDYITVYQQDEQQEDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEESIKIAYCENKCGNCSYTEPDIDIDV
VCENITKKAGDELSEV--EPKLTGQH--------S-------HP----------------------N-PHRHG-HH----
-HRRHH----------HHH---------HHKG---GRGPRR----ENLQAAPEPE-
---RRHP-HSGR-----------RHGLF-----------GHHRHDQI-GSQEHVDTAP-PE-EIM-------E-IAQD-
RKLRKKGKNSCKNQLTUYWQTGSD---STSSSUSCHCRHL-LFEELGN--SVTUQCR-GALPNSCRUHGQLA--
AEDVTESUQURLLSAAUHSP--AAGASETSDTU--------------QUQEKARNUSUKTN-----------
>Pseudopodoces_humilis XM_005533298.2 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWAGLGLFLALCVLPGGGTEIQ-----
NCQEPPEWHIGEEDPMWNSRGSVTVVALLQASUSLCLRQASSLEDLRVKLESEGLVNISYVVVNHQGSQSQREFHLLKER
VSDYITVYQQDEQQEDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEESIKIAYCENKCGNCSYTEP--
DIDGVCENITKKAGEELSEI--EPKPTGQH--------S-------HP----------------------N-LHRHG-
HH-----HRR-H----------HHH---------HHMG---SRDPKH----
EDHQAASQTE----RHHP-HGGW-----------RHRLF-----------GRHRHDQI-GSQEHVDTAP-PG-EIV----
---E-IAQD-RKLRKKGKNSCKNQLTUNWETGSG---SASSSUSCHCRHL-LFEELGN--SVTUQCR-
GTLPNSCRUHGQLA--AEDITESUQURLLSAAUHSP--PAGASETSDTU--------------QUQEKARNUSUKTN---
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>Parus_major XM_015615143.1 PREDICTED: selenoprotein P (SELENOP), mRNA
MWAGLGLVLALCVLPGGGTEIQ-----
NCQEPPEWRIGEEDPMWNSRGSVTVVALLQASUSLCLRQASSLEDLRVKLENEGLVNISYVVVNHQGPQSQREFHLLKER
VSDYITVYQQDEQQEDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEESIKIAYCENKCGNCSYTEP--
DIDGVCENITKKAGEELSEI--EPKPTGQH--------S-------HP----------------------N-LHRHG-
HH-----HRR-H----------HHH---------HHMG---SRDPKH----
EDHQAASQTE----RHHP-HGGW-----------RHRLF-----------GRHRHDQI-GSQEHVDTAP-PG-EIV----
---E-IAQD-RKLRKKGKNSCKNQLTUNWETGSG---SASSSUSCHCRHL-LFEELGN--SVTUQCR-
GTLPNSCRUHGQLA--AEDITESUQURLLSAAUHSS--PAGASETSDTU--------------QUQEKARNUSUKTN---
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>Corvus_brachyrhynchos XM_008630622.2 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), mRNA
MWAGLGLVLALCLLPGGGTEIQ-----
NCLEPPEWRIGEEDPMWNSRGSVTVVALLQASUSLCLRQASSLEDLRVKLENEGLVNISYVVVNHQGPQSRREFHLLKER
VSDYIAVYQQDEQQDDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEESIKIAYCENKCGNCSYTEP--
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DIDAVCENITKEMGEELREL--ESKPTGQH--------S-------HP---------------------HH-PHRHG-
HH-----RRHHH-----------------------------------HRH---------HHMG---SHDPKH----
ENHQAASETE----RRHP-HSSW-----------RHRVF-----------GHHRHDQI-GSQEPVETVP-PG-EIV----
---E-IAQD-KKLGKKGKNSCKNQLTUNWQTGSD---STSSSUSCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLA--AEDITESUQURLLSAAUHS---PAGASETSDTU--------------QUQEKVRNUSUKTN---
----
>Corvus_cornix XM_010395218.2 PREDICTED: cornix selenoprotein P (SELENOP), mRNA
MWAGLGLVLALCLLPGGGTEIQ-----
NCLEPPEWRIGEEDPMWNSRGSVTVVALLQASUSLCLRQASSLEDLRVKLENEGLVNISYVVVNHQGPQSRREFHLLKER
VSDYIAVYQQDEQQDDVWTTLNGNKDDFLIYDRCGRLVYHLGLPYSFLHFQYVEESIKIAYCENKCGNCSYTEP--
DIDAVCENITKKMGEELREL--ESKPTGQH--------S-------HP---------------------HH-PHRHG-
HH-----RRLHH-----------------------------------HRH---------HHMG---SHDPKH----
EYHQAASETE----RRHP-HSSW-----------RHRVF-----------GHHRHDQI-GSQEPVETVP-PG-EIV----
---E-IAQD-KKLGKKGKNSCKNQLTUNWQTGSD---STSSSUSCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLA--AEDITESUQURLLSAAUHS---PAGASETSDTU--------------QUQEKVRNUSUKTN---
----
>Serinus_canaria XM_009099400.2 PREDICTED: selenoprotein P (SELENOP), mRNA
MWAGLGLVLALCLLPGGGTEIQ-----
NCQEPPEWRIGEEDPMWNSRGSVTVVALLQASUFLCLRQASSLEDLRVKLENEGLVNISYVVVNHQGAQSRREFHLLKKR
VSDYITVYQQDEQQEDVWTTLNGNKDDFLIYDRCGRLVYHLGMPYSFLHFQYVEEAIKIAYCENKCGNCSYMEP--
DIDGVCENITKKAVEELSEI--EAKPTDEH--------S-------HP---------------------N-LHRHG-
HH-----RRRHH-----------------------------------HHH---------HHQG---SHDPNH----
ENHQAAAETE----RHHP-HSGW-----------RHRLF-----------GRHRHDQI-DSQEHVDTAP-PE-EIV----
---E-IPLD-KKQQKKGKNSCKNQLTUNWQKGSD---STSSSUSCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLA--AEDITESUQCRLLSAAUHSS--PAGASETSDTU--------------QUQEKARNUSUKTN---
----
>Taeniopygia_guttata NM_001270877.1 selenoprotein P (SELENOP), mRNA
MWAGLGLVLALCLLPVGGTEAQ-----
NCQEPPKWHIGEEDPMWNSRGSVTVVALLQASULLCLRQASSLEDLRVKLENEGLVNISYVVVNHQGVQSRREFHLLKER
VSDYITVYQQDEQQEDVWTTLNGNKDDFLIYDRCGRLVYHLGMPYSFLHFQYVEESIKIAYCENKCGNCSYMEP--
DADGVCENITKKAVEELSEI--EPKPTGQH--------S-------HP---------------------N-LHRHG-
HH-----QRHHH-----------------------------------HHH---------HHKG---SRDPKH----
ENHQAAAEAE----RHHP-HSGW-----------RHRLF-----------GHHRHDQI-GSQEHVDTDP-PG-EIV----
---E-IPQD-KKLRKKGKNSCKNELTUNWQTGSD---STSSSUSCHCRHL-LFEELGN--SATUQCR-
GALPNSCRUHGQLA--AEDITESUQCRLLSAAUHSS--PAGASETSDTU--------------QUQEKARNUSUKKN---
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>Zonotrichia_albicollis XM_005493710.2 PREDICTED: selenoprotein P, plasma, 1
(SEPP1), transcript variant X1, mRNA
MWARLGLVLALCLLPGGGAEIQ-----
NCQEAPEWRIGEEDPMWSSRGSVTVVALLQASULLCLRQASSLEDLRVKLENEGLVNISYVVVNHQGAQSQREFHLLKER
VSDYITVYQQDEHQEDVWTTLNGNKDDFLIYDRCGRLVYHLGMPYSFLHFQYVEESIKIAYCENKCGNCSYMEP--
DIDGVCENITKKAVEELSEI--EPEPTDQH--------S-------QS---------------------S-PHRHG-H-
--------HH-----------------------------------HRH---------HHQG---SRDPKH----
ESHQAAAETD----RHHP-HSAW-----------RHRLF-----------GRHRHDQT-GSQEHIDTAP-PG-EIV----
---E-IPQD-KKLRKKGKNSCKNQLTUNWQTGSD---STSGSUSCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQLA--AEDVTESUQCRLLSAAUQSS--PAGASETSDTU--------------QUQEKARNUSUKTN---
----
>Geospiza_fortis XM_005422007.2 PREDICTED: selenoprotein P, plasma, 1 (SEPP1),
transcript variant X1, mRNA
MWAGLGLVLALCLLPGGGTEIQ-----
NCQEPPEWRIGEEDPMWNSRGSVTVVALLQASULLCLQQASSLEDLRLKLENEGLVNISYVVVNHQGAQSRREFHLLKEH
VSDYITVYQQDEHQEDVWTTLNGNKDDFLIYDRCGRLVYHLGMPYSFLHFQYVEESIKIAYCENKCGNCSYMEP--
DIDGVCENITKKAVEELSEI--EHEPTDQH--------S-------HP---------------------N-PHRHG-
HH-----HRRHH-----------------------------------HRH---------RHQG---SRDPKH----
ENHQAAAEAD----RHHP-HSAW-----------RHRLF-----------GRHRHNQT-GSQEHVDTAP-PG-EIV----

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---E-IPQD-KKLRKKGKNSCKNQLTUNWQTGSD---STSGSUSCHCRHL-LFEELGN--SVTUQCR-
GALPNSCRUHGQQA--AEDVTESUQCRLLSAVUHSS--PAGASETSDTU-------------QUQEKARNUSUKTN---
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>Protobothrops_mucrosquamatus XM_015817116.1 PREDICTED: selenoprotein P, plasma,
1 (SEPP1), mRNA
MWAGLGLALILCLLPGGGSEHLGD----
CKEPPEWNIGEENPMMNSRGSVTVVALLQASUYLCLLQASRLGDLQLKLASNGMVNISFIVVNHQGNSSQLKYQLLREKV
PEDIPVYQQNATQPDVWTTLRSKKDDFLIYDRCGRLVYHLGLPVSFLSFPFVEKAIQITYCKETCGNCSYTTS--
EIEEICKRIWENPEEKQTE---APSSASQLSP---REHP-------HH---------------------H---HPHH-
HH--------HH-----------------------------------GHH--------PH----------------------
----------HHP-------------QGHHHE-------------GDHQHLIA-INDQHNRRVLGQE-PAA-------
AVPLQG-DRLUQRGGGICKHQLSUNWQHLTG---PVSSSUCUHCRRL-LFEEQQS--TVSUHCR-GELPSSURUQGQLL-
-ADNVAESUQURLPTAAULLP--AARRGETUQUA-------------GPDDUAUGTV---------------
>Scleropages_formosus XM_018758901.1 PREDICTED: selenoprotein P (selenop), mRNA
MWAGLGPLLALCLLPWGATESEDE-
GSRCKPAPPWTVGGVEPMKAALGTVTVVGLLKASUYYCLVQASRMDDLRQKLEQQGFDNITYMVVNSQELVARLFHHHLR
QKMSENITLYVQDPKQDDIWQILSGDKDDFLVYDRCGLLTYQISMPFSKLSMPYVENAIRKTYCKNICANCLLEHP--
GTTEICNKSVESTTEEKTEE--IVVSEVDH-----SRLP-------SH---------------------H---HVHS-
HA------HGHNRDHFH------GHSHHHSH---------------GHN-QH-----HHVQH---ESLEQH----
NHRHQHDHTD-----NIA-QEGAINLPPQL-------ILH----------GQQ--------------------EVL----
---DHPIHPRRDPUKTEQSRUKVQYSUQRQAETPSL-NSLSSUCUHURQL-FGSEGGNGPAALUHCE-
EELPSSUQUHGLMG-GTHAVRETUQURTPLAAUQQH-QPT-UVUPQGIN-------------TUAUQGQ----------
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>Lepisosteus_oculatus XM_015368034.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), mRNA
MWTGLSLVLAVALLPVGGAESEGG-
GGRCKTPPEWAVGNEQPMTDSAGRVTVVALLQASULFCLVQASRLDVLRLRLEQQGLVNISYVVVNHQGEQSHRLYPVLK
KKMSQKIRVYDQDPLQEDVWKILSGEKDDFLIYDRCGSLTHHLGLPYSMLTMSYVEDAIRDTYCKDICGNCSLESS--
SLPVTCNSTVKPEGKPEDKPE-ESPESHGH----------------PH--------------------AH--GHGHH-
HSEEGRQSHRRH----------SSHGHHHGH---------------GRH---------HHGS---QQEFNN---------
------------------------GQTQRH-SQT----------HQQ-Q-----QLIKNPSLLSQQ-EVV-------
DFPLRI-EWPUKKGAAKUKHQYSUEWKEGSSD--LLSSSUCUHCRQL-FGGEGUDQ-AAFUHCE-EKPPASCQUQGLQG-
-GNHVRETUQURSSSKAURLP-SAAGQPEQSUTU-------------PQGNERU--------IUQEQ-----
>Hippocampus_comes XM_019872703.1 PREDICTED: selenoprotein P (selenop),
transcript variant X1, mRNA
MWASLSLLLALCLLQGGAAESEEGVGHRCQPPPDWRIGGVEPMRATMGRVTVVALLQASULFCLVQASGMDRLRLQMESQ
GLKDVTYMVVNHQGAHAQLLHSMLEQRLSANIALYKQEEHQPDVWQLLNGAKDDFFIYDRCGRLTRQISLPYSIIGQGHI
EGAIKDTYCKRLCGTCTYESA--EIPSECQVTTEEE-RPDAAP--AVDAETGH-----HSQH-------HH---------
---GH-------H---HHHH-HQ------HGHH-------------SHDPSL---------------GHH----------
-------------------HHGNRQM---------------------QIQSH-HSL----------GQQ-A-----
SQGQSHVAP-Q--EAQ-------GMPVM--QQPUAPQTSRUKSKHAURWAAASDSDAATAASUCUHURRL-LGETGE---
PSLURCQ-EALPATUQUHGQSE--ANHVSETUQURSHPADUQPP-QPDQUAUPPGVV-------------SUEUGHL--
----------------
>Pygocentrus_nattereri XM_017684896.1 PREDICTED: selenoprotein Pa-like
(LOC108412737), mRNA
MWAGLSVALALCVLGGSSAESESD-
GARCKAAAEWKIGEMEPLKESLGRVTVVAYLQASULFCLVQASRLDGLRLKLEKVGYANITYIVVNSQDESSRRLHPLLA
QRLSESITLYGQEPETPDVWQIANVAKDDFQIYDRCGRLTHHLSLPYTILSQPYVEDAIRRTYCDGICGECTMESS--V-
PQECNTTAEEKPEEETPR--AEEGEAGH-----SHSPGIGH--GHH---------------------SH---HGGH-HG--
-----GHHGHQRG-----------QHR---------------GHHGSGGT-----HSH---D-DSDH----
QHGHQGQVVV-----SQV-QRGQVDLGH--PQVAHKHVDL----------GQ----------VDLGLVF-DQVEAR----
---NPLAM--QQPUAK-RSRUKVLFSUQQGAL-----SPAGSUCUHURRL-IDGQSDA-PAALUHCE-
EPLAASUQUQGLTA-ADNHIRETUQURSAAVADURSPQPA-UAUSAGDS-------------QUVUQEV----------
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>Astyanax_mexicanus XM_015605298.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), mRNA
MWAGLSVALALCVLAGCSAESDGD-
GARCKPPAVWKIGDVEPLKDSLGQVTVVAFLQASULFCLVQAAKLDSLRLKLEKAGYANITYLVVNSQDENSRRLHSLLE
QRLSANITLYGQEPDAQDIWQIANVMKDDFQIYDRCGRLTHHLSLPYTILSGPHVEEAIRNTYCDRTCGECSMESS--
IQPQECNGTVEEKPVVEEEE--VGRGHHGG-----GHHSGHHG--GHH------------------GGH---HGGH-
HG-------GHHGGHHS-----------GHH---------------GHHGDHGGQQRGHHDH---EGGSHH----
QHGHQGQVVI-----SQV-QRG---------QVVHRHTDM----------GQLGL-----RHIDLGQVA-Q--EAG----
---NPQVM--NQPUAK-RSRCKIQYTUQQGGL-----SQTTSUCUHURRL-IGSQSEE-PAALUHCE-
EPLAASUHUQGLAA-GDNNVRETUQURSASTADUQLPQPS-UNUPAGSS--------------VUEUQVV----------
----
>Ictalurus_punctatus XM_017466927.1 PREDICTED: selenoprotein Pa-like
(LOC108264920), mRNA
MWRSLSLTLLAALVVGCRGESETD-
GARCKPAAVWKIGDVEPLKDSLGRVTVVSFLQASUWFCLSQATRLEELRQKLEDAGFVNITYMVVNSQDENSLRVHSLLK
KKLSDNITLYKQNPEEPNVWSMAKAEKDDFQIYDRCGRLTHHLSMPYTILSQPHVEEAIRNAYCAAVCGECELERS--
DQLEECNKTKEEKTEETPK---TEEEDHHH------HQH-------HH---------------------H---HGHH-
EG-------HHH--------------RGHHH---------------GHH-PH-----DGVET---RGGSNQ----
QHGHEGQVIV-----EQV-QRGSLDP----GQVQRSQVDLGQAHVGQIDLGQVGI-----GQIDLQHVA-D--DVG----
---NQQVM--RRPUAS---RUKFQFMCQQGALSD-----PSSUCUHURRL-IGLHLNE--RPLUQCS-
EPLAASCLUQGLMA--DQNNMETUQURPAHLGDUQPAQPI-UAUPAGIS--------------QUEUQAI----------
----
>Cynoglossus_semilaevis XM_017043144.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), transcript variant X2, mRNA
MRVYLPLLLTLCLVHGGGAESDGD-
GRLCRLPPSWKIGEVEPMKGTMGQVTVVALLQASULFCLVQAASMDGLRQSLEGQGLKNVAYMVVNHQGVVAQRVHSMLE
ARLSENITLYKQDEQQTDVWQTLNGDKNDFLIYDRCGRLTHHISLPYYVISHGHVERAIKDTYCNHICGICTHESP--
ETPEECTQTAVPQPDADASA--AEGHGQGH-----DHDH-------HH------------GR-------H---HG-----
---------HGGAHDFHPRGLGYGHHHHH---------------GHH-HG-----GDDGT---GQHHNHG-------
HGQRSH-----DFS-R----------HDGHHS-ADP----------DLI-Q-----HVMQVQLMP-QE-EAQ-------
GAPV----RSUDQTRVKUKSKYSUQLSAGSDGQTSAQLTUCUHURRL-FESTGGQQPVGLUHCE-
EGLPASUWUHRLTGDVTDNVRETUQURSPLVDUQQN-QPAPUAUPPGVV--------------SUGUEQL----------
----
>Austrofundulus_limnaeus XM_014002668.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), mRNA
MWACLGLLLTLCLLHGGGAESEGG-
GPRCQLPPAWSVGEVEPMKGSMGQVTVVALLQASULFCLVQASRMDGLRRKMESQGLKDVVYMVVNDQTQEAQRLHPLLA
LKLSENIALYKQSEQQPHVWQTLNGRKDDFFIYDRCGRLTHHISLPYSIIGLGHIERAIKDAYCNRICGECSFENT--
EPAEECTNAA-AQPVADPIP----PDNTEQ-----IHVQ-------HQ------------GQS------H---HHRG-
HS--------HHGRDH------LHHSHDHNH---------------GHH-HG-----NQDGF---AHSSDH----
VQNHHHVRDH-----GQH-DAG-L------SQNQHQ-FEA----------DPM-Q-----QAVLTQQML-Q--EVD----
---GAHL----RPUGSEGVRUKSKFSUQWVAGSENEAAPKASUCUHURRL-FGDTDSEQPLGLUHCD-
EALPASUQUHDL-SEAVSNVRETUQURPPPAAUQQP-QSSQUVUPPGVG--------------SUAUEPL----------
----
>Nothobranchius_furzeri XM_015972873.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), mRNA
MWVRLNLLLTLCLLHGGGAESDGG-
GPLCQLPPSWTVGEVEPMAGSMGKMTAVALLDASULLCLVQASRLAALRQKLEDQGLKDVVYMAINHQGEQAQRLNPLLA
HRLTESITLYKQHVHQADVWQTLNGKKDDFFIYDRCGRLTHHMSLPYTFIGHGHVESAIKKTYCNRICGECSHESN--
ETAAECTTMDAAQPEA--------GDHTEH-----AQNH-------HH------------GRH-----AH---HGHH---
-----GHGHHGDNHD-----SGHGHDQNH---------------DHR-HG-----NHHGT-------DH----
EQRHQGVRSQ--------------------EQDQHAPLER----------HSM-Q-----HPVLTQQMF-P--EVH----
---AAPV----RPUGTQKAKUKAKYSUQWTAASENEAAPEASUCUHURRLSFGDAGSEHQQGLUHCD-
EALPASUQUHSLMSEAAGNVKETUQURSPPADUQQP-EPARUAUPSGVG--------------SUAUEQL----------
----

>Cyprinodon_variegatus XM_015389155.1 PREDICTED: selenoprotein P, plasma, 1 (sepp1), mRNA
MWVRLGLLLTLCLLHGGGAESEGG-
GPRCQPPSPWMIGEVEPMKGSRGQVTVVALLKASULFCLVQASRLDGLRQELESHGMRDVVYMVINHQEEQSQRLHPMLA
QRLSDKISLYKQAEQQPDVWQTLNAKKDDFIIYDRCGRLTHHISLPYSVIGHGHIESAIKEAYCNRMCGDCSHETA--
ETLEACKAKPPAQPDADAPP--AVGDLPEH-----DHSR-------HH------------GQG------H---HGHG-
HR--------HHGNHHSSHHR----AFGRNH---------------GHH-HG-----NHNGD---GHGSEL----
EQSQQVVRPE-----EH-----------------------------------QL-Q-----HAVETQQLL-Q--QDL----
---AAQV----RPUVAQKLRUKSKFTUQGTTGSGNEAAPKASUCUHURRL-FGEAGSEQPLGLUHCD-
EALPASUQUQGLTSEAAIDVKETUQURMPPAAUQQP-QPAPUAUPPGIG--------------SUAUEQL----------
----
>Fundulus_heteroclitus XM_012869956.1 PREDICTED: selenoprotein P, plasma, 1 (sepp1), mRNA
MWMRL-LLLTLCLLHGGGAESEGG-
GPRCQAPPTWMIGEVEPMAGSKGQVTVVALLKASULFCLAQASRLDGLRLKLESQGLRDVVFMVINHQGEHAQRLHPMLA
QRLPDSISLYKQSEQQPDVWTALNGKKDDFIIYDRCGRLTHHISLPYSVIGHGHIESAIKEAYCNRMCGDCSYETA--
ESPEECKAKPNAQPDAVAPP--AVGDNTQH-----DHSR-------HH------------GHG------H---QG-----
--------QHGHGHVFHPR----GFGHNH---------------GHH-RG-----NHNGD---ASGPDT----
EQSQQGVRPE-----HHG-H----------AQGQHH-LDS----------VQL-Q-----RPVDTQQFS-Q--EVL----
---AFPV----RPUAADNVRUKSKFTUQGAAGSDNEAAPKAGUCUHURRM-FGEAADEQALGLUHCE-
GALPASUQUQGLTSEAAAAVKETUQURVPPAAUQQP-QPAQUAUPPGLG--------------SUAUEQL----------
----
>Xiphophorus_maculatus XM_014469023.1 PREDICTED: selenoprotein P, plasma, 1 (sepp1), mRNA
MWVRLSLLLTLCLLHGGGAESEGG-
GPRCQPPPTWMIGEVEPMKGTAGQVTVVALLQATULFCLVQASRIDGLRQKLETQGLNDVVYMVINHQGEQAQRLHPLLA
QRLSDKISLYKQGEQQPDVWQTLNGKKDDFIIYDRCGRLTDHISLPYSVIGHGHIESAIKEAYCNRKCGACSHETA--
ETPEECRATPNAQPDADTPA--AVGDNTEP-----DHSR-------HH------------GHG------H---HGHG-
HHGHGHHGHGHHGQHGHHHHR----HHPDHH---------------GHH-HG-----NHNGD---GFGSDL----
EQSQQGVRQD-----H----------------AQHG-FDS----------LQL-Q-----QAVDTEQLL-Q--QAI----
---AAPV----RPUVAEKGKUKSKFTUQGTAGSENETAPKASUCUHURRM-FGEAGSEQSLGLUHCE-
GGLPASUQUQGLTSEAAADVRETUQURMPSAEUQQP-QPDQUAUPSGVG--------------SUAUEQL----------
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>Poecilia_reticulata XM_008418328.2 PREDICTED: selenoprotein P, plasma, 1 (sepp1), transcript variant X1, mRNA
MWVRLSLLLTLCLLHGGGAESEGG-
GPRCQPPSTWMIGEVEPMKGTAGQVTVVALLKASULFCLVQASRIDGLRQKLETQGLNDVVYMVINHQGEQAQRLHPMLA
ERLSDKISLYKQGEQQPDVWQALNGKKDDFIIYDRCGRLTHHISLPYSVIGHGHIESAIKEAYCNRMCGACSHETA--
ETPEGCRATPNAQPEADAPA--AVGDNTEH-----DHRR-------HH------------GHG------H---HGHG-
HHGHGHHGHGHHGQHGHHHHR----HHGDHH---------------GHY--------------------GDL----
EQSQQGAGQD-----H----------------GQHV-FDL----------PQL-Q-----QAVDTEQLL-Q--EAV----
---AAPV----RPUVAEKGRUKSKFTUQGTAGSENETVPKASUCUHURRV-FGEAGSEQSLGLUHCE-
EGLPASUQUQGLTSEAATNVRETUQURMPPAEUQQP-QPDQUAUPSGVG--------------SUAUEQL----------
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>Poecilia_formosa XM_007557591.2 PREDICTED: selenoprotein P, plasma, 1 (sepp1), mRNA
MWVRLSLLLTLCLLHGGGAESEGG-
GPRCQPPSTWMIGEVEPMKGTAGQVTVVALLKASULFCLVQASRIDGLRQKLETQGLNDVVYMVINHQGEQAQRLHPMLA
ERLSDKISLYKQGEQQPDVWQALNGKKDDFIIYDRCGRLTHHISLPYSVIGHGHIESAIKEAYCNRMCGACSHETA--
ETSEGCRATPNAQPEADGPA--AVGDNTEH-----DHSRHHGH--GHH------------GHG------H---HGHG-
HHGHGHHGHGHHGQHGHHHHR----HHGDHH---------------GHQ--------------------GDL----
EQSQQGAGQD-----H----------------GQHV-FDS----------PQL-Q-----QAVDTEQLL-Q--EAV----
---AAPV----RPUVAGKGRUKSKFTUQGTAGSENETVPKASUCUHURRV-FGEAGSEQSLGLUHCE-
EGLPASUQUQGLTSEAAADVRETUQURMPPAEUQQP-QPDQUAUPSGVG--------------SUAUEQL----------
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>Notothenia_coriiceps XM_010768670.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), mRNA
MRVCLSLLITLCLLHGGGAESDGG-
GPRCQLPPAWKIGEQGPMQGAMGHVTVVALLQASULFCLVQASRMDGLRQKLESQGLKDVVYMVVNQQGEQAQRLHTMLE
QRLSENITLYKQVEQQPDVWKELGGEKDDFLIYDRCGRLTHHISLPYSIIGQGHVDSAIKDTYCKRICGDCRYEST--
EAAEECKGNADTQPDT--AP--AVEGDTGH-----AH---------HH----------GH-------H---HGHA---
--------------------------HSH---------------GQH-HG-----NHDGA---------------
DQQGVRQQ-----GHQ-QLGGD------SQRQDQ-LDV----------G---Q-----QAVNEQQMA-Q--QAH------
-VAFV----RPUVAEKAGUKSKHSUQWTAGSDNEASPKASUCUHURRL-FGETGSEQPVSLUHCD-
EALPASUQUHGLIGDAV-NVRETUQURPPPADUQQP-QPTQUAUPPGV---------------SUGUEQL----------
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>Lates_calcarifer XM_018675114.1 PREDICTED: selenoprotein P (selenop), mRNA
MWACLSLLLTLCLLHRGEAESDGG-
GPRCQLPPAWSIGEEEPMKGAMGRVTVVALFQASULFCLVQATRLDSLRQKLEGQGLKDVVYIVVNHQGEEAQRLHTVLA
QRMTENITLYKQDPQQPDVWQTLSGEKDDFLIYDRCGRLTHHISLPYSIIGQGHVEGAIRDTYCKRICGDCTHEST--
ESPEECKVKADAQPDTDVNP--AVEEDTAR-----GHGH-------HH----------GHG-----HH---HGRH-
HG----QRHGHHGDNH---PQGFGHGQDHNH---------------GHH-HG-----HHDGT---GHGHDH----
GHSQQGLRPQ-----EHG-QGG----------GQQQ-ADL----------GQM-Q-----HAVHTHQMS-H--EAH----
---GAHV----RPUVQEKARUKSKHSUQMTAGSDNEASPKVSUCUHURRL-FGEAGSEEPVGLUHCD-
EALPASUQUHGLIGDAANNVRETUQURSHPADUQQP-QPAQUAUPPGVA--------------SUGUEQL----------
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>Stegastes_partitus XM_008293857.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), mRNA
MWACLGLLLTLCLLHGGGAESEGG-
GPRCQLPPAWRIGEVEPMKGSMGRVTVVALLQASULFCLVQASRMDGLHQKMESEGLKDVVYMVVNHHGEQAQRLHPMMA
QRLSVNITLYKQEEQQPDVWQTLGGDKDDFLIYDRCGRLTHHISLPYSIIGQGHIEGAIKDAYCKRTCGDCVYESA--
EIPEECKEKADAQPGAVGSP--AVEHDTGH-----GH---------HH----------GH-------H---HGHH-
HG----HGHGDHGVDH-----GLDQAHDHNH---------------GQH-HG-----HHHGHHGAGHGSDQA--
QSHGQQIVEVQ-----GHE-QDGRV------SQMQHH-FDL----------GQV-Q-----QAVHTQQMS-H--DAH---
----GAHA----APUTPEKVRUKSKHSUQWAAGSDNDASPKASUCUHURRL-FGDAGSEQPVGLUHCD-
EALPASUQUHGLIGDAVNNVRETUQURLPHAAUQQP-QPAQUAUPPGVV--------------SUGUQQL----------
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>Larimichthys_crocea XM_019264479.1 PREDICTED: selenoprotein P (selenop),
transcript variant X2, mRNA
MWACLSLLITLCLLHGGGAESDGG-
GPRCQLPPAWKIGEVDPMNGAMGKVTVVALFQASULFCLVQAGRMDGLRQKLESQGLKDVVYMVVNHQGGQSQRLHTMLA
QRLTETITLYKQGEQQPDVWQTLGGEKDDFFIYDRCGRLTQHISLPYSIIGQGHVESAIKDTYCKRICGECTHEST--
EIPEECKEKADAQPVA---P--PVEEDTGN-----AH---------HH----------GH-------H---HGHG-
HG--------HHGVNH---------GHDHNH---------------GHP-HG-----NHGGH-----DSEHG--
QGQSQQGVSHQ-----GHQ-QD--V------SQIQDH-LDL----------GQM-Q-----QVAQVYQMP-Q--EVH---
----VAPV---NTPUVQEKARUKSKFSUQGTTGSDNEASPKSSUCUHURRL-FGEAESEQPAGLUHCD-
EALPASUQUHGPTGDAANNVRETUQURSPPADUQQP-QPAQUAUPQGASUUQQPAQUAUPQGVSUGUDQL----------
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>Paralichthys_olivaceus XM_020102717.1 PREDICTED: selenoprotein P (selenop),
transcript variant X2, mRNA
MWAGLSLLLTLCLLHGGGAESDGG-
GPRCQPPPPWKIGEVEPMKERMGQVTVVALLQASULFCLVQASRMDGLRQKLESQGLRDVTYMVINHQGEQAQRLHTTLA
QRLSESITLYKQDELQPDVWQTLGGEKDDFFIYDRCGRLTHHISLPYSIIGQGHVEGAIKDAYCKRMCGDCTHESA--
EIPEECKGKADAQPDAVAAP--AVEEDTGH-----GH---------GH----------GH-------H---HGHP-
HG----HDHAHHGDNHGFHPRGFGHGDGQHH---------------GHH-HG-----NHHGN---HDNHDHG--
QSQTHQDLRPQ-----GQQ-QNGQV------FQRQQH-AEL----------GQM-Q-----QAVHMLQMR-Q--EAH---
----AAPV----MPUVPKKLSUKSKHSUQWTAGSDNEASPKVSUCUHURRL-FGEAGSEEPVGLUHCD-
EALPATUQUHGLIGDAANNVRETUQURSHPADUQQP-QPAQUPUPPGVV--------------SUGUEQL----------
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>Oreochromis_niloticus XM_013271867.2 PREDICTED: selenoprotein P (selenop), mRNA

MWAGLSLLLTLCLLHGGGAESEGG-
GPRCQLPSDWRIGDVEPMKGSVGRVTVVALLQASULFCLVQASRLDGLQQKLERQGLKNVVYMVVNHQGEQSRHLHPLLE
AKLSKNIILYKQDGHQPDVWQTLAGEKDDFFIYDRCGRLTYRISLPYSIIGEGHIEKAIKDTYCKRLCGDCTHESA--
EIPEECKDNAGVQPDV---P--AEQDDTRH-----DH---------HH----------GH----GHGHHHGHGHH-
HG----HGHGHHGDNQDVHPH--GHGSDHNN---------------GHH-HR-----NHDGA-------------
DQTQHGVRPH-----GHF-HEGDM------PQTQHH-FDL----------GQI-P-----QEVHNQQVA-Q--EAH----
---AVIE----RPULSRKNRUKLKYNUQGLTGSDNEI--KSSUCUHURRL-FGEAGSEQPVGLUHCD-
EALPTSURUHGLIGDAVNDVRETUQURLPHAAUQEP-QPAQUAUPPGVV--------------SUGUEQL----------
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>Pundamilia_nyererei XM_013913071.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), transcript variant X2, mRNA
MWAGLSLLLTLCLLHGGGAESEGG-
GPRCQPPSDWRIGDVEPMKGSVGRVTVVALLQASULFCLVQASRLDGLQQKLERQGLKNVVYMVVNHQGEQSRHLHPLLE
AKLSKNIILYKQDGQQPDVWQTLAGEKDDFFIYDRCGRLTHRISLPYSIIGQGHIAQAIKDTYCKRLCGDCTHESA--
EIPEECKDNAEVQPDA---P--AEQDDTRH-----GH---------HH----------------------SHGHQ-
NG----HGHGHHGDNQDVHPRGFGHGSDHNN---------------GHH-HR-----NHNGA-------------
DQTQHGVRPH-----GHF-HEGDM------PQTQHH-FDL----------GQI-P-----QDVHNQQVA-Q--EAH----
---AVIE----RPULSRTNRUKLKYNUQGLMGSDNEI--KSSUCUHURRL-FGEAGSEQPVGLUHCD-
EALPTSURUHGLIGDAVNDVRETUQURLPHAAUQEP-QPAQUAUPPGVV--------------SUGUEQL----------
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>Haplochromis_burtoni XM_014332574.1 PREDICTED: selenoprotein P, plasma, 1
(sepp1), transcript variant X2, mRNA
MWAGLSLLLTLCLLHGGGAESEGG-
GPRCQPPSDWRIGDVEPMKGSVGRVTVVALLQASULFCLVQASRLDGLQQKLERQGLKNVVYMVVNHQGEQSRHLHPLLE
AKLSKNIILYKQDGQQPDVWQTLAGEKDDFFIYDRCGRLTHRISLPYSIIGQGHIAQAIKDTYCKRLCGDCTHEST--
EIPEECKDNAEVQPDV---P--AEQDDTRH-----GH---------HH----------GHGHQNGHGHQNGHGHQ-
NG----HGHGHHGDNHDVHPRGFGHGSDHNN---------------GHH-HR-----NHNGA-------------
DQTQHGVRPH-----GHF-HEGDM------PQTQHH-FDL----------GQI-P-----QDVHNQQVA-Q--EAH----
---AVIE----RPULSRKNRUKLKYNUQGLTGSDNEI--KSSUCUHURRL-FGEAGSEQPVGLUHCD-
EALPTSURUHGLIGDAVNDVRETUQURLPHAAUQEP-QPAQUAUPPGVV--------------SUGUEQL----------
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>Maylandia_zebra XM_012918061.2 PREDICTED: selenoprotein P, plasma, 1 (sepp1),
mRNA
MWAGLSLLLTLCLLHGGGAESEGG-
GPRCQPPSDWRIGDVEPMKGSVGRVTVVALLQASULFCLVQASRLDGLQQKLERQGLKNVVYMVVNHQGEQSRHLHPLLE
AKLSKNIILYKQDGQQPDVWQTLAGEKDDFFIYDRCGRLTHRISLPYSIIGQGHIAQAIKDTYCKRLCGDCTHESA--
EIPEECKDNAEVQPDV---P--AEQDDTRH-----GH---------HHGHGHQNGHGDQNGHGHQNGHGHQNGHGHQ-
NG----HGHGHHGDNRDVHPRGFGHGSDHNN---------------GHH-HR-----NHNGA-------------
DQTQHGVRPH-----GHF-HEGDM------PQTQHH-FDL----------GQI-P-----QDVHNQQVA-Q--EAH----
---AVIE----RPULSRKNRUKLKYNUQGLTGSDNEI--KSSUCUHURRL-FGEAGSEQPVGLUHCD-
EALPTSURUHGLIGDAVNDVRETUQURLPHPAUQEP-QPAQUAUPPGVV--------------SUGUEQL----------
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>Salmo_salar XM_014171136.1 PREDICTED: selenoprotein P, plasma, 1 (sepp1),
transcript variant X2, mRNA
MWAGLSLLLALCLLPGGGTESEGE-
GTRCKPPPGWSIGEVEPMKEVMGQVTVVALLQASULFCLVQASLLDGLRLKLEGQGLENVTYMVVNHQGEQAQRLHTLLR
QKLSENITLYKQQPKQDDVWQTLAGEKDDFLVYDRCGRLTYHISLPYSILGTPYVENAIKKTYCTRICGDCSYESQ--
EIPAECNRTVEAKPEGEEKP--VTGRETTH-----GGHG-------HH---------------------H---HGHG-
HN---DNRHGHN-------------GNRHGH---------------DHH-GE-----RGMGR---
GHGRDHGAERQQQHQHDTEG----LQHG-Q----------AQGQLH-VGQ----------EHMGQ-----QAVQLGQMP-
Q--EGQ-------RGHIM--QNPUVKGMSRUKAEHSUQWKEGSDLSPSSKASUCUHURRL-FGDGESNEPIGLUHCD-
EALPASUQUQGLMG-----LRETUQURSSPADUQQP-QPVMUAUPLGVE--------------SUGUGQL----------
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>Esox_lucius XM_020052514.1 PREDICTED: selenoprotein P (selenop), transcript
variant X2, mRNA

MWAGLSLLLALCLLPGGGTESEGE-
GSRCKPPPIWSIGEVEPMKEAMGQVTVVALLQASULFCLVQASLLDGLRLKLEGQGLKNVHYMVVNHQGEKAQRLHKLLK
QKLSEKITLYKQEPEQVDVWQSLAGQKDDFLIYDRCGRLTYHISLPYSIMSIPYVENAIKETYCARICGNCKHESV--
EIPAECNGTAEATSEGEDKP--TTTVEPTH-----DGHQ-------HH------------RH-------H---HHHH-
HH---DDKH-----------------------------------GDH-GD-----REVGR---GHGAEQ----
QRHHKHVGEG------HR-H----------VQDQLH-VSQ----------DHVGQ-----TAVQLGQ------ETN----
---EGQVM--QRPUAKEGVRCSGQHDUQWKEGSVLSPSSKASUCUHURHL-LDDGVSGQPIRLUHCN-
EALPASCQUHGLKG----LLRETUQURSPQTDUQQP-RPVMUAUSPGVE--------------SUGUEQL----------
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>Xenopus_tropicalis NM_001199884.1 selenoprotein P, plasma, 1 (selenop), mRNA
MWKGFALALALCLLPWGGAESQGH-
RKRCKEPPEWSIGDQNPMMQSAGKVTVVALLQASUSLCLLQASRLEDLRLKLEKEKLVGISYVVVNHQGRQSRAKYDLLK
SKVSEHIPVYQQEEYQPDVWSLLKGDKDDFFVYDRCGRLVQHLELPYSLLHFPYVEEAIRIAYCEDKCGECEHKIL---
DADVCKKPEEQQEQDKPV---EEKVERPR----------------HH------------RN-------H---HRHH-RP-
--KHSGHRH-----------------------------------RHH---------HSED---GQVAEL----
DVLRSSAQAN------------------------NRAG-----------SQNGQ-----GQSVVQVVP-QS-
EVLFVPQREADIPVLA-RQPUKK-AKSUKKQYLUDWREEGG---KAFNSUCUHURQL-SFEVTEN--EVAUHUQ-
EALPSSCSUQELLS---DSLPESUQURLSAAAUHSE--STGLPETKLES--------------
EPNAPUAUPQEAENUQUKELURFLM