Bos taurus glial fibrillary acidic protein (GFAP), mRNA

NCBI Reference Sequence: NM_174065.2

FASTA Graphics

Go to:

LOCUS NM_174065 2878 bp mRNA linear MAM 28-APR-2025
DEFINITION Bos taurus glial fibrillary acidic protein (GFAP), mRNA.
ACCESSION NM_174065
VERSION NM_174065.2
KEYWORDS RefSeq.
SOURCE Bos taurus (domestic cattle)
ORGANISM Bos taurus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Artiodactyla; Ruminantia; Pecora; Bovidae; Bovinae; Bos.
REFERENCE 1 (bases 1 to 2878)
AUTHORS Schlafli,P., Troger,J., Eckhardt,K., Borter,E., Spielmann,P. and Wenger,R.H.
TITLE Substrate preference and phosphatidylinositol monophosphate inhibition of the catalytic domain of the Per-Arnt-Sim domain kinase PASKIN
JOURNAL FEBS J 278 (10), 1757-1768 (2011)
PUBMED 21418524
REFERENCE 2 (bases 1 to 2878)
AUTHORS Zimin,A.V., Delcher,A.L., Florea,L., Kelley,D.R., Schatz,M.C., Puiu,D., Hanrahan,F., Pertea,G., Van Tassell,C.P., Sonstegard,T.S., Marcais,G., Roberts,M., Subramanian,P., Yorke,J.A. and Salzberg,S.L.
TITLE A whole-genome assembly of the domestic cow, Bos taurus
JOURNAL Genome Biol 10 (4), R42 (2009)
PUBMED 19393038
REFERENCE 3 (bases 1 to 2878)
AUTHORS Bouchard,P., Ravet,V., Meiniel,R., Creveaux,I., Meiniel,A., Vellet,A. and Vigues,B.
TITLE Use of a heterologous monoclonal antibody for cloning and detection of glial fibrillary acidic protein in the bovine ventricular ependyma
JOURNAL Cell Tissue Res 298 (2), 207-216 (1999)
PUBMED 10571109
REFERENCE 4 (bases 1 to 2878)
AUTHORS Kirkpatrick,B.W. and Hart,G.L.
TITLE Conformation polymorphisms and targeted marker development
JOURNAL Anim Genet 25 (2), 77-82 (1994)

PUBMED 8010535

COMMENT PROVISIONAL REFSEQ: This record has not yet been subject to final NCBI review. The reference sequence was derived from BC119892.1.

On Aug 27, 2006 this sequence version replaced NM_174065.1.

##Evidence-Data-START##
Transcript exon combination :: BC119892.1, Y08255.1 [ECO:0000332]
RNAseq introns :: single sample supports all introns
SAMN04019636 [ECO:0000348]
##Evidence-Data-END##

FEATURES Location/Qualifiers

source 1..2878
/organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
/chromosome="19"
/map="19"
/breed="L1 Hereford"

gene 1..2878
/gene="GFAP"
/note="glial fibrillary acidic protein"
/db_xref="BGD:BT10734"
/db_xref="GeneID:281189"
/db_xref="VGNC:VGNC:29323"

exon 1..454
/gene="GFAP"
/inference="alignment:Splign:2.1.0"

CDS 6..1292
/gene="GFAP"
/codon_start=1
/product="glial fibrillary acidic protein"
/protein_id="NP_776490.2"
/db_xref="BGD:BT10734"
/db_xref="GeneID:281189"
/db_xref="VGNC:VGNC:29323"
/translation="MERRRVTSATRRSYVSSSEMVVGGRRLGPGTRLSLARMPPPLPA
RVDFSLAGALNSGFKETRASERAEMMELNDRFASYIEKVRFLEQQNKALAAELNQLRA
KEPTKLADVYQAELRELRLRLDQLTANSARLEVERDNLAQDLGTLRQKLQDETNQRLE
AENNLAAYRQEADEATLARLDLERKIESLEEEIRFLRKIHEEEVRELQEQLAQQQVHV
EMDVAKPDLTAALREIRTQYEAVASSNMHEAEEWYRSKFADLNDAAARNAELLRQAKH
EANDYRRQLQALTCDLESLRGTNESLERQMREQEERHAREAASYQEALARLEEEGQSL
KDEMARHLQEYQDLLNVKLALDIEIATYRKLLEGEENRITIPVQTFSNLQIRETSLDT
KSVSEGHLKRNIVVKTVEMRDGEVIKESKQEHKDVM"

misc_feature 6..209
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Head"
misc_feature 24..26
/gene="GFAP"
/note="Phosphothreonine, by AURKB and ROCK1.
/evidence=ECO:0000250|UniProtKB:P14136; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 39..41
/gene="GFAP"
/note="Omega-N-methylarginine.
/evidence=ECO:0000250|UniProtKB:P03995; propagated from
UniProtKB/Swiss-Prot (Q28115.2); methylation site"
misc_feature 42..44
/gene="GFAP"
/note="Phosphoserine, by AURKB and ROCK1.
/evidence=ECO:0000250|UniProtKB:P14136; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 105..107
/gene="GFAP"
/note="Phosphoserine, by AURKB and ROCK1.
/evidence=ECO:0000250|UniProtKB:P14136; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 210..305
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Coil 1A"
misc_feature 237..239
/gene="GFAP"
/note="Phosphoserine.
/evidence=ECO:0000250|UniProtKB:P47819; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 306..338
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Linker 1"
misc_feature 321..323
/gene="GFAP"
/note="Phosphothreonine.
/evidence=ECO:0000250|UniProtKB:P47819; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 339..635
/gene="GFAP"

/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Coil 1B"
misc_feature 441..443
/gene="GFAP"
/note="Phosphothreonine.
/evidence=ECO:0000250|UniProtKB:P47819; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 636..683
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Linker 12"
misc_feature 684..749
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Coil 2A"
misc_feature 750..761
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Linker 2"
misc_feature 762..1124
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Coil 2B"
misc_feature 960..962
/gene="GFAP"
/note="Phosphoserine.
/evidence=ECO:0000250|UniProtKB:P47819; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 1125..1289
/gene="GFAP"
/note="propagated from UniProtKB/Swiss-Prot (Q28115.2);
Region: Tail"
misc_feature 1140..1142
/gene="GFAP"
/note="Phosphothreonine.
/evidence=ECO:0000250|UniProtKB:P47819; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
misc_feature 1146..1148
/gene="GFAP"
/note="Phosphoserine.
/evidence=ECO:0000250|UniProtKB:P47819; propagated from
UniProtKB/Swiss-Prot (Q28115.2); phosphorylation site"
exon 455..515
/gene="GFAP"

```
                     /inference="alignment:Splign:2.1.0"
     exon            516..611
                     /gene="GFAP"
                     /inference="alignment:Splign:2.1.0"
     exon            612..773
                     /gene="GFAP"
                     /inference="alignment:Splign:2.1.0"
     exon            774..899
                     /gene="GFAP"
                     /inference="alignment:Splign:2.1.0"
     exon            900..1120
                     /gene="GFAP"
                     /inference="alignment:Splign:2.1.0"
     exon            1121..1164
                     /gene="GFAP"
                     /inference="alignment:Splign:2.1.0"
     exon            1165..1250
                     /gene="GFAP"
                     /inference="alignment:Splign:2.1.0"
     exon            1251..2851
                     /gene="GFAP"
                     /inference="alignment:Splign:2.1.0"
ORIGIN
        1 ccaggatgga gaggagacgg gtcacctcag ccactcgccg ctcctatgtc tcctcctcag
       61 agatggtggt ggggggccgc cgcctgggtc ccggcacccg cctgtccctg gctcgaatgc
      121 cgcctccact cccagcccgg gtggacttct ccctggccgg ggcactcaac tccggcttca
      181 aggagacccg ggccagcgag agggcagaga tgatggagct caatgaccgc ttcgccagct
      241 acattgagaa ggtgcgcttc ctggagcagc agaacaaggc gctggctgcc gagctcaacc
      301 agctgcgggc caaggaaccc accaagctgg ccgacgtcta ccaggcggag ctgcgcgagc
      361 tgcgcctgcg gctcgatcaa ctcactgcca acagcgcccg gctcgaggtg gagagggaca
      421 acctggcaca ggacctgggc accttgaggc agaagctcca ggatgaaacc aaccagaggc
      481 tggaggctga gaacaacctg gctgcctatc gacaggaagc agatgaagcc accctggccc
      541 gtctggatct ggagaggaag attgagtctc tggaggagga aatccggttc ttgaggaaga
      601 tccatgagga ggaggtgcgg gagctccagg agcagctggc ccagcagcag gtccacgtgg
      661 agatggatgt agccaagcct gacctcacag cggccctgag agagatccgc acacagtatg
      721 aggcagtggc atccagcaac atgcatgagg cggaggagtg gtaccggtcc aagtttgcgg
      781 acctcaacga cgccgccgcc cgcaacgcgg agctgctccg ccaggccaag catgaggcca
      841 acgactaccg gcggcagctg caggccttga cctgcgacct ggagtccttg cgcggcacga
      901 acgagtccct ggagcggcag atgcgcgagc aagaggagcg ccacgcgcgg gaggcggcga
      961 gttaccagga ggcgctggcc cggctggagg aagaggggca gagcctcaag gacgagatgg
     1021 cgcgccacct gcaggaatac caggatctgc tcaacgtcaa actggccctg gacatcgaga
     1081 tcgccaccta caggaagctg ctagagggcg aggagaaccg catcaccatt cctgtgcaga
     1141 ccttctccaa cctgcagatc cgagaaacca gcctggacac caagtccgtg tcagaaggcc
     1201 acctcaagag gaacattgtg gtgaagaccg tggagatgcg ggatggagag gtcattaagg
```

```
    1261 agtccaagca ggagcacaag gatgtgatgt gagcaggact catctggcgg tcactgcccc
    1321 accgtgtgag gcatctgcag caggagtcag ggtagctgtc ccttcatctg ctagttaatt
    1381 tccccagaat tgagttccca cccaatccag ttgctcctct tcctgctcca tctctatgcc
    1441 agcttgccac cctaggctcc agcagcatta agcctgtcag acagcaccca ccctacaccc
    1501 agcaacacta acagggcact cacccccaaag ggtggcctgg aggggcatgg ccagcagctt
    1561 gggctagaat tgggagggag gagagaaagc agggagggca gagagacctc ataaatcacc
    1621 ctgccctccg tatcccgaac ctctgttgtc atggcaactg ttgccagagc tggaggtgtc
    1681 tggggcctcc agaatggggc cttcgagttt ccttgagctg ctagaggaaa actgagagtc
    1741 tgagacaagc agaggaagtc cccaaggcaa ggtggccttg gccagaggct tattcttcta
    1801 gactgactct gaccagtctg agggtaggtg gggctatcct gccaactggg agagtcagca
    1861 gacagaattc ctggcctgct cagatcgcag aggggcctcc tgagcgatgc gttgagtgtc
    1921 tcaggcccac tgagctgcca catgggcatg ccgtgggccc gtgtgagctt gattctctgt
    1981 gcttgggggа agtatagtgt aagtgcagag gaaaggggtg ctgggaggga gtagaagggg
    2041 gccttgccca ttgctgtggg tacagagagg tcaagcccag gaggactcca atacaggctg
    2101 gagtgagcag gtagagatgg tgggggcagc acttgggatg atgctaggca tcagagttgg
    2161 ggtcgtgggt gagcagttac acttggcctt tgggtcgtgg gaatcaagaa agtgacttat
    2221 cctcttgaag atgctgacac aggaaaggaa gaggctgctg ttcatgggag tggggcctgc
    2281 tttgtcccag ccctcaaggc cctttccttg ctttgtaaac cttgtccatc caggcctgtg
    2341 agcccctgca actgccacct gacccaggaa acactgctag gcgaagcctc tgttgccacc
    2401 caacctcctc tccccacagt gatcactgct cttccctaaa ccaaggcccc tgtagtcccc
    2461 tcttagtcaa atacaaaaca tacccacctc cccgtgtttt aggtagcact ttatttttatg
    2521 atttggaacc tgaggcccat gcagagtaaa gacactggtt tgtgttcccg cagcctggag
    2581 gcaggaaagc ttggggcaga cactttcacc ctgagtacct gttctgctgt tcacagggag
    2641 actagtgggc atgagatgat cagtgcccac aagtggggct ctgaagccca ctccagggtc
    2701 cccatctccg tccaagtcag agggacttaa ctgcataccc ttcccccatt ccctcctgcc
    2761 acccactgct gctaaccttt ggggcattgc tgcgggcttt agtcactgac ataaatgcaa
    2821 caaataaaga caactgctgt ggccttcccc aaaaaaaaaa aaaaaaaaaa aaaaaaaa
//
```