

Product datasheet for **RC204548**

GFAP (NM_002055) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GFAP (NM_002055) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GFAP
Synonyms:	ALXDRD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC204548 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGAGGAGACGCATCACCTCCGCTGCTCGCCGCTCCTACGTCTCCTCAGGGGAGATGATGGTGGGG
 GCCTGGCTCCTGGCCCGGTCTGGGTCTGGCACCCGCTCTCCCTGGCTCGAATGCCCCCTCCACTCCC
 GACCCGGGTGGATTTCTCCCTGGCTGGGCACTCAATGCTGGCTTCAAGGAGACCCGGGCCAGTGAGCGG
 GCAGAGATGATGGAGCTCAATGACCGCTTTGCCAGCTACATCGAGAAGGTTGCTTCTGGAACAGCAAA
 ACAAGGCGCTGGCTGCTGAGCTGAACAGCTGCGGGCCAAGGAGCCACCAAGCTGGCAGACGTCTACCA
 GGCTGAGCTGCGAGAGCTGCGGCTGCGGCTCGATCAACTACCGCCAACAGCGCCCGCTGGAGGTTGAG
 AGGGACAATCTGGCACAGGACCTGGCCACTGTGAGGCAGAAGCTCCAGGATGAAACCAACCTGAGGCTGG
 AAGCCGAGAACAACCTGGCTGCCTATAGACAGGAAGCAGATGAAGCCACCCTGGCCGCTGGATCTGGA
 GAGGAAGATTGATCGCTGGAGGAGGATCCGGTTCTTGAGGAAGATCCACGAGGAGGAGTTCCGGAA
 CTCAGGAGCAGCTGGCCCGACAGCAGGTCATGTGGAGCTTGACGTGGCCAAGCCAGACCTCACCGCAG
 CCCTGAAAGAGATCCGCACGCAGTATGAGGCAATGGCGTCCAGCAACATGCATGAAGCCGAGAGTGGTA
 CCGCTCCAAGTTTGCAGACCTGACAGACGCTGCTGCCCGCAACGCGGAGCTGCTCCGCCAGGCCAAGCAC
 GAAGCCAACGACTACCGGCGCCAGTTGCAGTCTTGACCTGCGACCTGGAGTCTCTGCGCGGCACGAACG
 AGTCCCTGGAGAGGCAGATGCGCGAGCAGGAGGAGCGGCACGTGCGGGAGGCGGCCAGTTATCAGGAGGC
 GCTGGCGCGGCTGGAGGAAGAGGGGCAGAGCCTCAAGGACGAGATGGCCCGCCACTTGCAGGAGTACCAG
 GACCTGCTCAATGTCAAGCTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGCTAGAGGGCGAGG
 AGAACCGGATCACCATTCCCGTGCAGACCTTCTCCAACCTGCAGATTCGAGAAACCAGCCTGGACACCAA
 GTCTGTGCAGAAAGCCACCTCAAGAGGAACATCGTGGTGAAGACCGTGGAGATGCGGGATGGAGAGGTC
 ATTAAGGAGTCCAAGCAGGAGCACAAGGATGTGATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204548 protein sequence
 Red=Cloning site Green=Tags(s)

MERRRITSAARRSYVSSGEMMVGGLAPGRRLGPGTRL SLARMPPLPTRVDFSLAGALNAGFKETRASER
 AEMMELNDRFASYIEKVRFLQEQNKALAAELNQLRAKEPTKLADVYQAE LRELRLRLDQL TANSARLEVE
 RDNLAQDLATVRQKLQDETNLRLAENNLAA YRQEADEATLARLDLERKIESLEEEIRFLRKIHEEEVRE
 LQEQLARQVHVVELDVAKPDLTAA LKEIRTQYEA MASSNMHEAE EWYRSKFADL TDAARN AELLRQAKH
 EANDYRRQLQSL TCDLESLRGTNESLERQ MREQEERHVREAASYQEALARLEEEGQSLKDEMARHLQEYQ
 DLLNVKLALDIEIATYRKLLEGEENRITIPVQTF SNLQIRETSLDTKSVSEGLKRNIVVKTVEMRDGEV
 IKESKQEHKDVM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6236_a08.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_002055

ORF Size: 1296 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002055.5](#)

RefSeq Size: 3097 bp

RefSeq ORF: 1299 bp

Locus ID: 2670

UniProt ID: [P14136](#)

Cytogenetics: 17q21.31

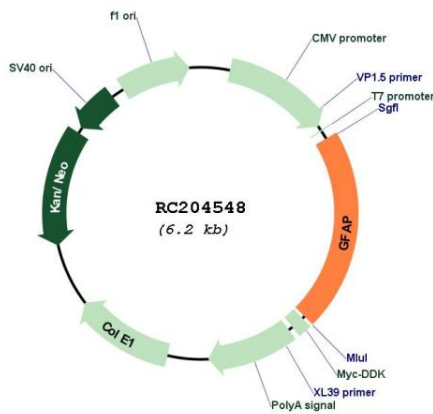
Domains: filament, filament_head

Protein Families: ES Cell Differentiation/IPS

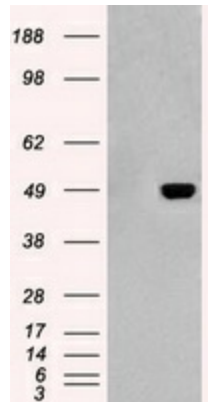
MW: 49.9 kDa

Gene Summary: This gene encodes one of the major intermediate filament proteins of mature astrocytes. It is used as a marker to distinguish astrocytes from other glial cells during development. Mutations in this gene cause Alexander disease, a rare disorder of astrocytes in the central nervous system. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Oct 2008]

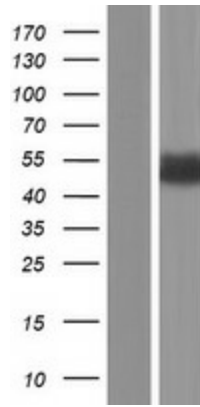
Product images:



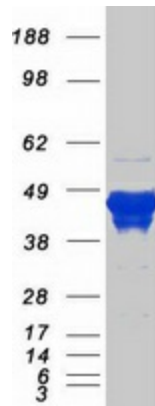
Circular map for RC204548



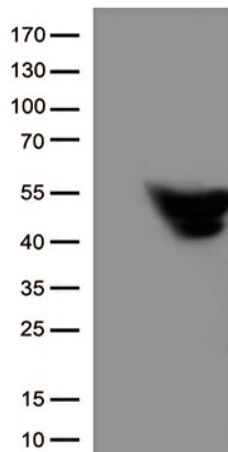
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GFAP (Cat# RC204548, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GFAP (Cat# [TA500338]).



Western blot validation of overexpression lysate (Cat# [LY419563]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204548 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GFAP protein (Cat# [TP304548]). The protein was produced from HEK293T cells transfected with GFAP cDNA clone (Cat# RC204548) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY GFAP (RC204548, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GFAP (1:500).