

## Product datasheet for **RG204548**

### GFAP (NM\_002055) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GFAP (NM_002055) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GFAP
Synonyms:	ALXDRD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204548 representing NM_002055 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGAGGAGACGCATCACCTCCGCTGCTCGCCGCTCTACGTCTCCTCAGGGGAGATGATGGTGGGG  
GCCTGGCTCCTGGCCGCGTCTGGGTCTGGCACC CGCTCTCCCTGGCTCGAATGCCCCCTCCACTCCC  
GACCCGGGTGGATTTCTCCCTGGCTGGGGCACTCAATGCTGGCTTCAAGGAGACCCGGCCAGTGAGCGG  
GCAGAGATGATGGAGCTCAATGACCGCTTGGCAGCTACATCGAGAAGGTTGCTTCTGGAACAGCAAA  
ACAAGGCGCTGGCTGCTGAGCTGAACCAGCTGCGGGCCAAGGAGCCACCAAGCTGGCAGACGTCTACCA  
GGCTGAGCTGCGAGAGCTGCGGCTGCGGCTCGATCAACTACCGCCAACAGCGCCCGGCTGGAGGTTGAG  
AGGGACAATCTGGCACAGGACCTGGCCACTGTGAGGCAGAAGCTCCAGGATGAAACCAACCTGAGGCTGG  
AAGCCGAGAACAACCTGGCTGCCTATAGACAGGAAGCAGATGAAGCCACCCTGGCCCGTCTGGATCTGGA  
GAGGAAGATTGAGTCGCTGGAGGAGGAGATCCGGTTCTTGAGGAAGATCCACGAGGAGGAGTTCCGGAA  
CTCCAGGAGCAGCTGGCCGACAGCAGGTCCATGTGGAGCTTGACGTGGCCAAGCCAGACCTCACCGCAG  
CCCTGAAAGAGATCCGCACGCAGTATGAGGCAATGGCGTCCAGCAACATGCATGAAGCCGAAGAGTGGTA  
CCGCTCCAAGTTTGACAGACCTGACAGACGCTGCTGCCCGCAACCGGAGCTGCTCCGCCAGGCCAAGCAC  
GAAGCCAAAGACTACCGGCGCCAGTTGCACTCCTGACCTGCGACCTGGAGTCTCTCGCGGCACGCAAC  
AGTCCCTGGAGAGGCAGATGCGCGAGCAGGAGGAGCGGCACGTGCGGGAGGCGGCCAGTTATCAGGAGGC  
GCTGGCGCGGCTGGAGGAAGAGGGGCAGAGCCTCAAGGACGAGATGGCCCGCACTTGCAGGAGTACCAG  
GACCTGCTCAATGTCAAGCTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGCTAGAGGGCAGG  
AGAACCGGATCACCATTCCCGTGCAGACCTTCTCCAACCTGCAGATTCGAGAAACCAGCCTGGACACCAA  
GTCTGTGTGAGAAGGCCACCTCAAGAGGAACATCGTGGTGAAGACCGTGGAGATGCGGGATGGAGAGGTC  
ATTAAGGAGTCCAAGCAGGAGCACAAGGATGTGATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204548 representing NM\_002055  
Red=Cloning site Green=Tags(s)

MERRRITSAARRSYVSSGEMMVGGLAPGRRLGPGTRL SLARMPPLPTRVDFSLAGALNAGFKETRASER  
 AEMMELNDRFASYIEKVRFLQQNKALAAELNQLRAKEPTKLADVYQAE LRELRLDQLTANSARLEVE  
 RDNLAQDLATVRQKLQDETNLRLAEAENLAAYRQEADATLARLDLKERKIESLEEEIRFLRKIHEEEVRE  
 LQEQLARQQVHVELDVAKPDLTAALKEIRTQYEAMASSNMHEAEWYRSKFADLTDAARNAELLRQAKH  
 EANDYRRQLQSLTCDLESLRGTNESLERQMRQEERHVREAASYQEALARLEEEGQSLKDEMARHLQEYQ  
 DLLNVKLALDIEIATYRKLLEGEENRITIPVQTF SNLQIRETSLDTKSVSEGLHKRNIVVKTVMERDGEV  
 IKESKQEHKDVM

TRTRPLE – GFP Tag – V

**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.

**RefSeq:** [NM\\_002055.5](#)

**RefSeq Size:** 3035 bp

**RefSeq ORF:** 1299 bp

**Locus ID:** 2670

**UniProt ID:** [P14136](#)

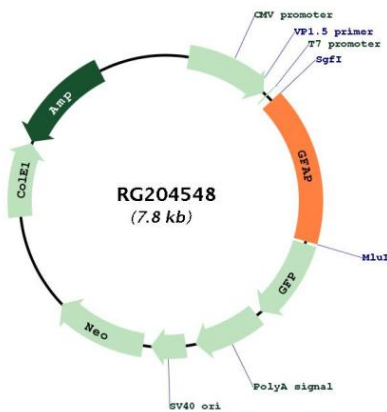
**Cytogenetics:** 17q21.31

**Domains:** filament, filament\_head

**Protein Families:** ES Cell Differentiation/IPS

**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 RG204548