

Product datasheet for **RG206622**

alpha 1 Fetoprotein (AFP) (NM_001134) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 1 Fetoprotein (AFP) (NM_001134) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	alpha 1 Fetoprotein
Synonyms:	AFPD; FETA; HPAFP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG206622 representing NM_001134
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGTGGGTGGAATCAATTTTTTTAATTTTCTACTAAATTTTACTGAATCCAGAACACTGCATAGAA
 ATGAATATGGAATAGCTTCCATATTGGATTCTTACCAATGTAAGTACTGCAGAGATAAGTTTAGCTGACCTGGC
 TACCATATTTTTTCCCAGTTTGTTCAGAAGCCACTTACAAGGAAGTAAGCAAAATGGTAAAAGATGCA
 TTGACTGCAATTGAGAAACCCACTGGAGATGAACAGTCTTCAGGGTGTAGAAAACCAGCTACCTGCCT
 TTCTGGAAGAAGTTGCCATGAGAAAGAAATTTGGAGAAGTACGGACATTCAGACTGCTGCAGCCAAAG
 TGAAGAGGAAGACATAACTGTTTTCTGCACACAAAAGCCACTCCAGCATCGATCCACTTTTCCAA
 GTTCCAGAACCTGTCACAAGCTGTGAAGCATATGAAGAAGACAGGGAGACATTATGAACAAATTCATTT
 ATGAGATAGCAAGAAGGCATCCCTTCTGTATGCACCTACAATTTCTTTGGGCTGCTCGCTATGACAA
 AATAATCCATCTTGCTGCAAAGCTGAAAATGCAGTTGAATGCTTCCAAACAAAGGCAGCAACAGTTACA
 AAAGAATTAAGAGAAAGCAGCTTGTTAAATCAACATGCATGTGCAGTAATGAAAAATTTTGGACCCGAA
 CTTTCCAAGCCATAACTGTTACTAACTGAGTCAGAAGTTTACCAAAGTTAATTTTACTGAAATCCAGAA
 ACTAGTCTGGATGTGGCCCATGTACATGAGCACTGTTGCAGAGGAGATGTGCTGGATTGTCTGCAGGAT
 GGGGAAAAATCATGTCTACATATGTTCTCAACAAGCACTCTGTCAAACAAAAAACAGAAATGCTGCA
 AACTGACCACGCTGGAACGTGGTCAATGTATAATTCATGCAGAAAATGATGAAAAACCTGAAGGTCTATC
 TCCAAATCTAACAGGTTTTTAGGAGATAGAGATTTTAAACCAATTTCTCAGGGGAAAAAATATCTTC
 TTGGCAAGTTTTGTTTCAATGAATATTCAAGAAGACATCCTCAGCTTGCTGTCTCAGTAATTTCAAGAGTTG
 CTAAGAAGATACCAGGAGTTATTGGAGAAGTGTTCAGACTGAAAACCCCTTTGAATGCCAAGATAAAGG
 AGAAGAAGAAATTACAGAAATACATCCAGGAGAGCCAAGCATTGGCAAAGCGAAGCTGCGGCCTCTCCAG
 AAAGTAGGAGAATATTACTTACAAAATGCGTTTCTCGTTGCTTACACAAAGAAAGCCCCCAGCTGACCT
 CGTCGGAGCTGATGGCCATCACCAGAAAATGGCAGCCACAGCAGCCACTTGTGCAACTCAGTGAGGA
 CAAACTATTGGCCTGTGGCGAGGGAGCGGCTGACATTATTATCGGACACTTATGTATCAGACATGAAATG
 ACTCCAGTAAACCCTGGTGTGGCCAGTGTGCACTTCTTCATATGCCAACAGGAGGCCATGCTTCAGCA
 GCTTGGTGGTGGATGAAACATATGTCCTCCTGCATTCTCTGATGACAAGTTCATTTTCCATAAGGATCT
 GTGCCAAGCTCAGGGTGTAGCGCTGCAAACGATGAAGCAAGATTTCTCATTAACTTGTGAAGCAAAG
 CCACAAATAACAGAGGAACAACCTGAGGCTGTCATTGCAGATTTCTCAGGCCTGTGGAGAAATGCTGCC
 AAGGCCAGGAACAGGAAGTCTGCTTTGCTGAAGAGGGACAAAACCTGATTTCAAAAACCTGCTGCTTT
 GGGAGTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG206622 representing NM_001134
 Red=Cloning site Green=Tags(s)

MKWVESIFLIFLLNFTESTRHLRNEYGIASILDSYQCTAEISLADLAIFFAQFVQEATYKEVSKMVKDA
 LTAIEKPTGDEQSSGCLNQLPAFLEELCHEKEILEKYGHSDCCSQSEGRHNCFLAHKKPTPASIPLFQ
 VPEPVTSCWAYEEDRETFMNFYIYIARRHPFLYAPTILLWAARYDKIIPSCCKAENAVECFQTKAATVT
 KELRESSLLNQHACAVMKNFGTRTFQAITVTKLSQKFTKVNFTIQLVLDVAHVHEHCCRGDVLDCLDQD
 GEKIMSYICSQQDTLSNKITECKLTTLARGQCIHAENDEKPEGLSPNLNRFLGDRDFNQFSSGEKNIF
 LASFVHEYSRRHPQLAVSVILRVAKGYQELLEKCFQTEPLECQDKGEEELQKYIQESQALAKRSCGLFQ
 KLGEYLLQNAFLVAYTKKAPQLTSELMAITRKMAATAATCCQLSEDKLLACGEGAADIIGHLICIRHEM
 TPVNPVGQCCTSSYANRRPCFSSLVVDETYVPPAFSDDKIFHDKLCCQQGVALQTMKQEFINLVKQK
 PQITEEQLEAVIADFSGLLEKCCQGEQEVCFEAEQKLIKSTRALGV

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001134

ORF Size: 1827 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_001134.2](#)

RefSeq Size: 2032 bp

RefSeq ORF: 1830 bp

Locus ID: 174

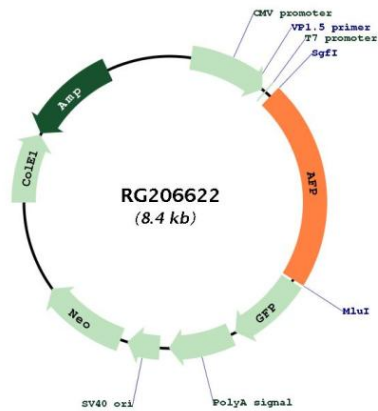
UniProt ID: [P02771](#)

Cytogenetics: 4q13.3

Protein Families: Druggable Genome, Secreted Protein

Gene Summary: This gene encodes alpha-fetoprotein, a major plasma protein produced by the yolk sac and the liver during fetal life. Alpha-fetoprotein expression in adults is often associated with hepatocarcinoma and with teratoma, and has prognostic value for managing advanced gastric cancer. However, hereditary persistence of alpha-fetoprotein may also be found in individuals with no obvious pathology. The protein is thought to be the fetal counterpart of serum albumin, and the alpha-fetoprotein and albumin genes are present in tandem in the same transcriptional orientation on chromosome 4. Alpha-fetoprotein is found in monomeric as well as dimeric and trimeric forms, and binds copper, nickel, fatty acids and bilirubin. The level of alpha-fetoprotein in amniotic fluid is used to measure renal loss of protein to screen for spina bifida and anencephaly. [provided by RefSeq, Oct 2019]

Product images:



Circular map for RG206622