

Product datasheet for **RG203800**

EFS (NM_032459) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	EFS
Synonyms:	CAS3; CASS3; EFS1; EFS2; HEFS; SIN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence: >RG203800 representing NM_032459
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCCATTGCCACGTCGGTGTATGTGGTGCCGCCCCAGCTCGGCCCTGTCCAACCTCAGGACCTCCAG
 CTGGACCTTGCCCAACCTCTCCTGACCTCATCTACAAAATCCCCAGAGCTAGTGGGACCCAGCTGGTGC
 TCCCAGAGATGCCTTGGAGGTCTACGATGTGCCCCCACC GCCCTCCGGGTGCCCTCCAGTGGCCCTAT
 GACTGCCCTGCCTCCTTTTCCACCCTCTGACCCGGGTTGCCCCGAGCCCCCTGGAGAGGATGATGCTC
 CCTATGATGTGCTCTGACCCCAAAGCCACCTGCAGAGCTGGAACAGATCTGGAGTGGGAAGGAGGCCG
 GGAGCCGGGGCCCCCATCTATGCTGCCCTCCAACCTGAAACGAGCGTCAGCCTTACTCAATTTGTAT
 GAAGCACCCGAGGAAGTCTGGCAGACGGGAGGGCGGGGCACTGATGAGGGGATCTACGATGTGCTC
 TGCTGGGGCCAGAGGCTCCCCCTTCCAGAGCCCCCTGGAGCCTTGGCCTCCCATGACCAGGACACCT
 GGCCAGCTTCTGGCCAGAAGCCCCCACCACACAGGCCCGGCTCCCCTCAGCTGAGAGCCTGTCC
 CGCCGCCCTGCTGCTGCTGCTGCTGCTGAGGCCCGAGCCCCCTCCCAAGTGCCTCTCCTGCCCCAG
 GCCGGAAGGGCAGCATCCAGGACCGGCTCTGCCCCACCCCCACCCCGCTGCCTGGTTATGGAGGCC
 CAAGGTCGAGGGGATCCAGAGGCGAGGAGATGGAGGATGACCCAGCAGGACACCAATGAGTACGAG
 GGCATTCGATGGCCGAGGAGTATGACTATGTCCACCTGAAGGGCATGGACAAAGCTCAGGGATCTAGG
 CCCCAGTACAGGCTGCACAGGGGATCCTGAACTGCCGAGAGGGGGATGCCGGCGCCGAGGAGGCCCT
 GTCCCCAGGGGAGCACTGGTTGTGTCCACCGAGATCTGCAGCTCCTGTACTTCTATGCTGGGCAATGC
 CAGAGCCACTACTCAGCCCTGCAGGAGCCGTGGCAGCCCTGATGTCCAGTACCAGGCTAATCAGCCCC
 CGCGCCTTTCTGTCGCCACAGCAAGAGGGTGGTGGCTGCTCATCGCTGGTGTGTTGTTGGGACAC
 CCTGGGCCGCTGGCAGCCTCTGCCCTCTGAGAGCACAGGTGAGGGCTGCAGGTACAGCACTGGGCCAG
 GCATTGCGGGCACTGTGCTGGCTGTCAAGGGAGCTGCCCTGGGCTACCATCCAGCCCTGCCATCCAAG
 AGATGGTGCAGTGTGTAACAGAACTGGCAGGGCAGGCCCTGCAATTCACCTACCCTGCTCACTAGCCTGGC
 TCCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG203800 representing NM_032459
 Red=Cloning site Green=Tags(s)

MAIATSVYVPPPARPCPTSGPPAGPCPPSPDLIYKIPRASGTQLAAPRDALEVYDVPPTALRVPSSGPY
 DCPASFHPLTRVAPQPPGEDDAPYDVPLTPKPPAELEPDLEWEGGREPGPIYAAPSNLKRASALLNLY
 EAPPEELLADGEGGGTDEGIYDVPLLGPEAPPSPEPPGALASHDQDTLAQLLARSPPPPHRRLPSAESLS
 RRPLPALPVPEAPSPVPSAPGRKGSIQDRPLPPPPRLPGYGGPKVEGDPEGREMEDDPAGHHNEYE
 GIPMAEEYDYVHLKGMKAQGSRRPDQACTGDPELPERGMPAPQEALSPGEPLVVSTGDLQLLYFYAGQC
 QSHYSALQAVALMSSTQANQPRLFVPHSKRVVVAHRLVFVGDTLGRLAASAPLRAQVRAAGTALGQ
 ALRATVLAVKGAALGYSSPAIQEMVQCVELAGQALQFTLLTSLAP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_032459

ORF Size: 1404 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.

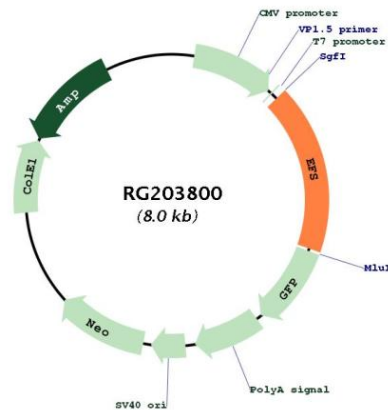
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_032459.3](#)

RefSeq Size: 2853 bp
RefSeq ORF: 1407 bp
Locus ID: 10278
UniProt ID: [O43281](#)
Cytogenetics: 14q11.2

Gene Summary: The protein encoded by this gene is a member of the CAS (CRK-associated substrate) family of adaptor proteins which typically serve as scaffolds for the assembly of larger signaling complexes. These complexes form at the cell surface where integrin binding leads to the subsequent phosphorylation of a CAS protein. Additional binding of SRC family kinases leads to CAS hyperphosphorylation and the creation of binding sites for CRK and other proteins that cause actin cytoskeleton reorganization. This gene plays a role in integrin-mediated cell attachment, spreading, and migration and also plays a role in both normal and malignant cellular transformation. This broadly expressed gene has been shown to play a role in neurite outgrowth and its expression in the thymus and lymphocytes is important for T cell maturation and the development of immunological self-tolerance. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]

Product images:



Circular map for RG203800