

Product datasheet for **RG206189**

RAIN (RASIP1) (NM_017805) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAIN (RASIP1) (NM_017805) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RASIP1
Synonyms:	RAIN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG206189 representing NM_017805
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGTCTGGTGAACGGAAGGAGGGCGGAAGCCCCCGCTTCGGGAAGCTTCATCTCCCCGTGGCCTGT
 GGATCAATCCCCCAGGAAGCAGCTGGCGAAGCTGGGGCGGCGCTGGCCAGCGCAGCCTCTGTCAAGTC
 TTCTTCGTCGGACACGGGGAGCCGACGAGCGAGCCGCTACCTCCGCCCCCGCCGACGTGGAGCTGCGG
 CGAGTGGGCGCTGTCAAGGCGGCCGGGGGAGCCTCCGGTAGCCGCGCAAGCGCATCTCCAGCTCTTCC
 GGGGCTCGGGGACCGGGACCACGGGTCCAGCGGCGCAGGAGGCCCTGGGACCCCGGGGGCGCGCAGCG
 CTGGGCCAGCGAGAAGAAGCTGCCGAGCTGGCGGCGGGCTGGCCCCGAGCCCCCGCTGGCTACCCGC
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 CGCACTGGGGCTCGGGGCTGCGAGGCCGCCGTGGTGCCTCGCGCGCCCCGGGGCCACGGCCAGGCC
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 ATCCTCCCCCTGGGAGCTCGCGCTGCGCCTCACTGGTCCAGTGACGGACGATGCCTTGACCCGTGAAC
 TCCGTAGGCTCCGCCCTCCTTGGGATCTTGGAGCAGGAGCTGCCAGCAATTATCGCCATGGGCC
 TCCCGTGGCCACGTCTCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG206189 representing NM_017805
Red=Cloning site Green=Tags(s)

MLSGERKEGGSPRFGLHLVGLWINSRKLAKLGRRWPSAASVKSSSDTGRSRSEPLPPPPHVELR
 RVGAVKAAGGASGRAKRISQLFRSGTGTTGSSGAGPGTPGGAQRWASEKKPELAAGVAPEPLATR
 ATAPPVGLKIFGAGLASGANYKSVLSTARSTARELVAEALERYGLAGSPGGPGESSCVDALCDALGR
 PAAAGVGSGEWRAEHLRVLGDSERP LLVQELWRARPGWARRFELRGREEARRLEQEAFGAADSEGTGAPS
 WRPQKNRSRAASGGAALASPGPGTGS GAPAGSGGKERSENL SLRRSVSEL SLQGRRRRQQERRRQQALSMA
 PGAADAQIGTADPGDFDQLTQCLIQAPSNRPYFLLLQGYQDAQDFVYVYVMTREQHVFGRGNSSSGRGSP
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 RAAAAGSGDLPPLGPATLLALCVQHSARELELGHLPRLGRLARLIKEAVWEKIKEIGDRQPENHPEGVP
 EVPLTPEAVSVELRPLMLWMANTTELLSFVQEKVLEMEKEADQEDPQLCNDLELCDEAMALLDEVIMCTF
 QQSVYYLTKLTYSTLPALLDSNPFTAGAE LPGAELGAMPPGLRPTLGVFQAAL E L T S Q C E L H P D L V S Q
 TFGY L F F F S N A S L L N S L M E R G Q R P F Y Q W S R A V Q I R T N L D L V L D W L Q G A L G D I A T E F F R K L S M A V N L L C
 V P R T S L L K A S W S S L R T D H P T L T P A Q L H H L L S H Y Q L G P G R P P A A W D P P P A E R E A V D T G D I F E S F S S H P P L
 I L P L G S S R L R L T G P V T D D A L H R E L R R L R R L W D L E Q Q E L P A N Y R H G P P V A T S P

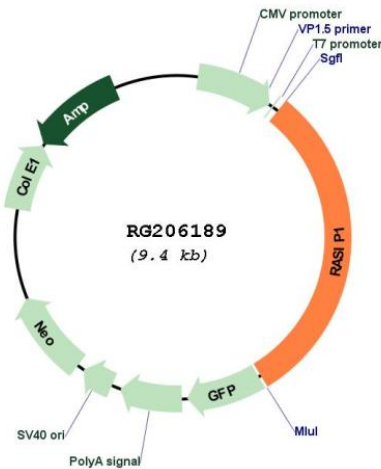
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_017805

ORF Size: 2889 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_017805.2](#), [NP_060275.2](#)

RefSeq Size: 3311 bp

RefSeq ORF: 2892 bp

Locus ID: 54922

UniProt ID: [Q5U651](#)

Cytogenetics: 19q13.33

Domains: DIL

Gene Summary: Required for the proper formation of vascular structures that develop via both vasculogenesis and angiogenesis. Acts as a critical and vascular-specific regulator of GTPase signaling, cell architecture, and adhesion, which is essential for endothelial cell morphogenesis and blood vessel tubulogenesis. Regulates the activity of Rho GTPases in part by recruiting ARHGAP29 and suppressing RhoA signaling and dampening ROCK and MYH9 activities in endothelial cells (By similarity). May act as effector for Golgi-bound HRAS and other Ras-like proteins. May promote HRAS-mediated transformation. Negative regulator of amino acid starvation-induced autophagy.[UniProtKB/Swiss-Prot Function]