

## Product datasheet for **RC206189**

### **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:	Myc-DDK
Symbol:	RAIN
Synonyms:	RAIN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC206189 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTGTCTGGTGAACGGAAGGAGGGCGGAAGCCCCCGCTTCGGGAAGCTTCATCTCCCCGTGGCCTGT  
 GGATCAATCCCCCAGGAAGCAGCTGGCGAAGCTGGGGCGGCGCTGGCCAGCGCAGCCTCTGTCAAGTC  
 TTCTTCGTCGGACACGGGGAGCCGACGAGCGAGCCGCTACCTCCGCCCCCGCCGACGTGGAGCTGCGG  
 CGAGTGGGCGCTGTCAAGGCGGCCGGGGAGCCTCCGGTAGCCGCGCAAGCGCATCTCCAGCTCTTCC  
 GGGGCTCGGGACCGGGACCACGGGTCCAGCGGCGCAGGAGGCCCTGGGACCCCGGGGGCGCGCAGCG  
 CTGGGCCAGCGAGAAGAAGCTGCCGGAGCTGGCGGCGGGCTGGCCCCGAGCCCCCGCTGGCTACCCGC  
 GCCACGGCGCCTCCGGGGTCTCAAGATCTTCGGCGCCGACTGGCATCGGGCGCAACTACAAGAGCG  
 TGCTGGCCACGGCGCGCTCCACGGCGCGGAGCTCGTGGCCGAGGCGCTAGAGCGCTACGGCCTAGCAGG  
 CAGCCCCGGCGGTGGCCCGGCGAGAGCAGCTGCGTGGACGCTTCGCTTTGTGCGACGCTCTGGGCGGG  
 CCCGCGGCGGGCGGCGTGGGAAGCGGCGAGTGGCGGGCGGAGCAGCTGCGCGTGTGGGCGACTCCGAGC  
 GCCCGCTGCTGGTGCAGGAGCTGTGGCGGGCGGGCCCGCTGGGCGCGGCGCTTCGAGTTGCGCGGCCG  
 CGAGGAGGCGCGGCGCTGGAGCAGGAGGCCCTCGGGGCCGCGGACAGCGAAGGCACCGGCGCCCTTCG  
 TGGCGGCCACAGAAGAACCCTCCCGGGCGGCGTGGGTGGGGCAGCGCTGGCCAGTCTGGCCCGGGGA  
 CCGGATCAGGGGCCCCAGCTGGGTCTGGAGGCAAGGAGCGCTCAGAAAATTGTCTTTCGGGCGCAGCGT  
 GTCGGAGCTTAGCCTTACGGGGCGGGCGGGCGGCGCAGCAGGAGCGGAGACAGCAGGCACTTAGCATGGCC  
 CCAGGGGCGAGCCAGCCCAAATCGAACTGCAGACCCCGGGGACTTCGATCAGTTGACTCAGTCACTGCTCA  
 TCCAGGCCCCAGCAACCGCCCTACTTCTGCTGCTCCAGGGTACCAGGAGCCAGGACTTTGTGGT  
 GTATGTGATGACCGGAGAGCAGCAGCTGTTGGGCGAGGTGGAACTCGTCTGGCCGCGGGGGTCCCCG  
 GCTCCCTATGTGGACACCTTCTCAACGCCCGGACATCCTGCCGCTACTGCACAGTGCAGCGGGGCC  
 CTGAGCACCCGGCCATGGTGCGCCCTCCCGGGCGCCCCAGTCACGCACAACGGGTGCCTCCTGTGCG  
 GGAGGCTGAGCTGCACCCGGGCGACCTCCTGGGCTGGGCGAGCACTTCTGTTTGTGTACAAGGACCCC  
 CGCACTGGGGCTCGGGGCTGCGAGGCCGCGCTGGTGCCTCGCGCGCCCCGGGGCCACGCCCGCAGGCC  
 CTGGCTGGGCTTCTCCTGTCGCTGTGCGGCCGCGGCTGCAGGAGCGGGCGAGGCACTGGCCGCTA  
 CCTGGACGGCCGTGAGCCAGTCTCGCTTCCGGCCGCGGAGGAGGCGCTGCTGGGCGAGATCGTG  
 CGCGCCGACGCCCGGCTCGGGAGACCTGCCGCCCTCGGGCCGCCACGCTGTGGCGCTGTGCGTGC  
 AGCATTCCGCCCGTGAAGTGGAGCTGGGCCACCTGCCACGACTGCTGGGCGCCTGGCCCGGCTCATCAA  
 GGAGGCCGTCTGGAAAAGATTAAAGAAATGGAGACCGTCAGCCAGAAAACACCTGAGGGGGTCCCC  
 GAGGTGCCCTGACTCCTGAAGCTGTGTCTGTGGAGCTGCGGCCACTCATGCTGTGGATGGCCAACACCA  
 CGGAGCTGCTTAGCTTTGTGAGGAGAAGGTGCTGGAAATGGAGAAGGAGGCTGACCAAGAGGACCCACA  
 GCTCTGCAATGACTTGAATATGTGATGAGGCCATGGCCCTCCTGGATGAGGTGATCATGTGTACCTTC  
 CAGCAGTGTCTACTACCTACCAAGACTCTCTATTCAACGCTGCCTGCTCTCCTGGATAGTAACCTTC  
 TCACAGCTGGTGCAGAGCTGCCGGGCTGGCGGGAGCTGGGGCAATGCCTCCAGGATTGAGACCTAC  
 CTTGGGCGTGTCCAGGAGCCTTGGAGCTGACCAGCCAGTGCAGCTGCACCTGACCTCGTGTCTCAG  
 ACTTTTGGCTACTTGTCTTCTTCCAAACGCATCCCTTCTCAACTCGCTGATGGAACGAGGTCAAGGCC  
 GGCTTTCTATCAATGGTCCCGAGCTGTCAAATCCGAACCAACCTGGACCTCGTCTGGACTGGCTACA  
 GGGAGCTGGGCTGGGCGACATTGCCACTGAGTCTTCCGAAACTCTCCATGGCTGTGAACCTGCTGTGT  
 GTGCCCCGCACTTCCCTGCTCAAGGCTTATGAGCAGCCTAAGAACCGACACCCACCTTGACCCCCG  
 CCCAGCTGCACCATCTGCTCAGCCACTATCAGCTGGGCCCTGGCCGCGGGCCGAGCCGCTGGGACCC  
 TCCCCCTGCAGAGCGGGAGGCTGTGGACACAGGGGACATCTTCAAAAGCTTCTCCTCGCACCCGCCCTC  
 ATCCTCCCCCTGGGAGCTCGCGCTGCGCCTCACTGGTCCAGTGACGGACGATGCCTTGACCGTGAAC  
 TCCGTAGGCTCCGCCCTCCTTGGGATCTTGGAGCAGGAGCTGCCAGCAATTATCGCCATGGGCC  
 TCCCGTGGCCACGTCTCCT

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC206189 protein sequence  
 Red=Cloning site Green=Tags(s)

MLSGERKEGGSPRFGKLHLPVGLWINSRKLAKLGRRWPSAASVKSSSDTGSRSSEPLPPPPPHVELR  
 RVGAVKAAAGGASGSRARISQLFRSGTGTTGSSGAGGPGTPGGAQRWASEKKPELAAGVAPEPLATR  
 ATAPPGVLKIFGAGLASGANYKSVLATASTARELVAEALERYGLAGSPGGPGESSCVDALCDALGR  
 PAAAGVSGGEWRAEHLRVLGDSERPLL VQELWRARPGWARRFELRGREEARRLEQAFGAADSEGTGAPS  
 WRPQKNRSRAASGGAALASPGPGTGSGAPAGSGGKERSENL SLRRSVSELSLQGRRRRQQERRQQALSMA  
 PGAADAQIGTADPGDFDQLTQCLIQAPSNRPYFLLLQGYQDAQDFVYVYMTREQHVFRGNGSSGRGGSP  
 APYVDTFLNAPDILPRHCTVRAGPEHPAMVRPSRGAPVTHNGCLLLREAEHPGDLLGLGEHFLFMYKDP  
 RTGGSGPARPPWLPARGATPPGPGWAFSCRLCGRGLQERGEALAYLDGREPVLRFPRREEEALLGEIV  
 RAAAAGSGDLPLGPATLLALCVQHSARELELGHLPRLGRLARLIKEAVWEKIKEIGDRQPENHPEGVP  
 EVPLTPEAVSVELRPLMLWMANTTELLSFVQEKVLEMEKEADQEDPQLCNDLELCDEAMALLDEVIMCTF  
 QQSVYYLTKTLYSTLPALLDSNPF TAGAELPGGAELGAMPPGLRPTLGVFQAALELTSQCELPDLVSQ  
 TFGYLVFFSNASLLNSLMERGQGRPFYQWSRAVQIRTNLDLVLDWLQAGLGDIAEFFRKL SMAVNLLC  
 VPRTSLLKASWSSLRTDHTLTPAQLHLLSHYQLGPGRPPAAWDPPPAEREAVDTGDI FESFSSHPPL  
 ILPLGSSRLRLTGPVTDALHRELRLRLLWDLEQQELPANYRHGPPVATSP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6814\\_a03.zip](https://cdn.origene.com/chromatograms/mk6814_a03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



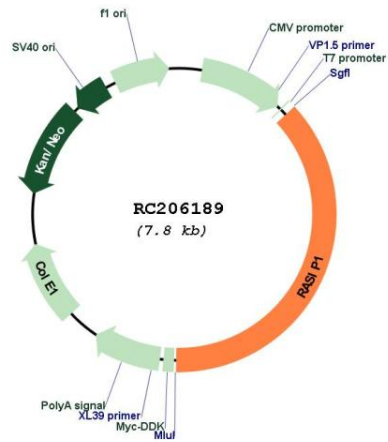
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_017805

**ORF Size:** 2889 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_017805.2</a> , <a href="#">NP_060275.2</a>
<b>RefSeq Size:</b>	3311 bp
<b>RefSeq ORF:</b>	2892 bp
<b>Locus ID:</b>	54922
<b>UniProt ID:</b>	<a href="#">Q5U651</a>
<b>Cytogenetics:</b>	19q13.33
<b>Domains:</b>	DIL
<b>MW:</b>	103.5 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for RC206189