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Product datasheet for RN200180

Syngap1 (NM_001113409) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Syngap1 (NM_001113409) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Syngap1
Synonyms:	Syngap
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN200180 representing NM_001113409 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGGCTTAAGGCCCCCCACCCCGACCCCGTCAGGGGGCTCCGGTTCAGGTTCCTTGCCCCCTCCTTCCC ACCGCCAGCCTCTCCGCCGCCGCTGCTCTTCCTGCTGCTTTCCGGGGGAATACCACTTGGGTCGCTCGAG GAGGAAGAGTGTCCCCGGGGGGAAACAGTACAGCATGGAAGCCGCCCCCGCTGCGCCCTTCCGGCCCTCG CAAGGCTTCCTGAGCCGGAGGCTAAAAAGCTCCATCAAACGTACAAAGTCACAACCCAAACTTGACCGGA CCAGCAGCTTTCGACAGATCCTGCCTCGCTTCCGAAGTGCTGACCATGACCGGGCCCGGCTGATGCAGAG CTTCAAGGAGTCTCACTCCCATGAGTCCCTGCTGAGTCCCAGCAGTGCTGCTGAGGCCCTGGAGCTCAAC CTGGATGAAGACTCCATTATCAAGCCAGTACACAGCTCCATCCTGGGCCAGGAGTTCTGCTTTGAGGTAA CAACATCGTCTGGGACAAAATGTTTTGCCTGTCGGTCTGCAGCCGAAAGGGACAAATGGATTGAGAATCT ACAGAGGGCTGTGAAACCCAACAAGGACAACAGCCGCCGGGTAGATAACGTGCTGAAACTATGGATCATA GAAGCTCGAGAGCTGCCCCCCAAGAAGCGATATTACTGCGAGTTATGCCTGGACGACATGCTCTATGCAC GGACCACTTCCAAGCCCCGCTCAGCCTCAGGAGACACTGTCTTTTGGGGCGAGCACTTCGAGTTTAACAA CCTGCCTGCTGTCCGGGCGCTGCGGCTGCATCTGTACCGTGACTCGGACAAAAAGCGGAAGAAGGACAAG GCAGGCTACGTTGGCCTGGTGACTGTTCCAGTGGCCACCCTGGCTGGGCGCCACTTCACAGAGCAGTGGT ACCCCGTGACCCTGCCAACAGGAAGTGGGGGCTCTGGGGGTATGGGCTCGGGGGGAGGAGGGGGGTCAGG GGGCGGCTCAGGGGGCAAAGGGAAAGGAGGCTGTCCTGCTGTGCGGCTGAAGGCCCGTTACCAGACAATG AGTATCCTGCCCATGGAGCTATATAAGGAGTTTGCAGAATATGTGACCAACCACTACCGCATGCTGTGTG CCGTGCTGGAGCCCGCCCTCAATGTCAAGGGCAAGGAGGAGGTCGCTAGTGCACTGGTTCACATCCTGCA AAGCACAGGCAAGGCCAAGGACTTCCTTTCAGACATGGCCATGTCAGAGGTAGACCGGTTCATGGAGCGG GAACACCTCATATTCCGCGAGAACACGCTCGCCACTAAAGCCATAGAAGAGTATATGAGACTGATTGGCC AGAAATACCTCAAGGATGCCATTGGGGAGTTCATCCGGGCTCTGTATGAATCTGAGGAGAACTGTGAAGT AGACCCCATCAAGTGCACAGCGTCCAGTCTGGCAGAGCACCAGGCCAACCTGCGGATGTGCTGTGAGTTG

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GCCCTGTGCAAGGTGGTCAACTCCCATTGCGTGTTCCCGGGGGAGCTGAAGGAGGTGTTTGCATCATGGC
GGCTGCGCTGTGCAGAGCGGGGCCGGGAGGACATTGCTGACAGGCTGATCAGCGCCTCGCTCTTCCTGCG
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GGAAGAGCAGACCAGCAAGATCCTGATGCAGTACCAAGCCCGCCTGGAGCAGAGCGAGAAGCGCTTGAGG
CAGCAGCAGGTGGAGAAGGACTCCCAGATCAAGAGCATCATTGGCAGGCTGATGCTGGTGGAGGAGGAGC
TGCGCCGGGACCACCCCGCCATGGCTGAGCCGCTGCCTGAACCCAAGAAGAGGCTGCTCGACGCTCAGAG
AGGCAGCTTCCCCCCTTGGGTCCAACAAACCCGCGTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001113409

Insert Size: 3750 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001113409.2, NP_001106880.2

RefSeq Size: 4729 bp

RefSeq ORF: 3750 bp

Locus ID: 192117

Cytogenetics: 20p12

Gene Summary: This gene encodes a Ras GTPase activating protein that is a member of the N-methyl-D-aspartate receptor complex. The N-terminal domain of the protein contains a Ras-GAP domain, a pleckstrin homology domain, and a C2 domain that may be involved in binding of calcium and phospholipids. The C-terminal domain consists of a ten histidine repeat region, serine and tyrosine phosphorylation sites, and a T/SXV motif required for postsynaptic scaffold protein interaction. The encoded protein negatively regulates Ras, Rap and alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptor trafficking to the postsynaptic membrane to regulate synaptic plasticity and neuronal homeostasis. Homozygous null mutations in mice result in early post-embryonic lethality, while heterozygous mutant mice display a variety of phenotypes that include learning and memory defects, hyperactivity, and audiogenic seizures. [provided by RefSeq, Nov 2016]
Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at an alternate start codon, compared to variant 1. The encoded isoform (2) has a distinct N-terminus and is shorter than isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.