

Product datasheet for SC303822

OriGene Technologies, Inc.

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SynGAP (SYNGAP1) (NM_006772) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: SynGAP (SYNGAP1) (NM_006772) Human Untagged Clone

Tag: Tag Free
Symbol: SynGAP

Synonyms: MRD5; RASA1; RASA5; SYNGAP

Mammalian Cell

Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Restriction Sites:Sgfl-MlulACCN:NM_006772

Insert Size: 4032 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 006772.2</u>





Cytogenetics:

SynGAP (SYNGAP1) (NM_006772) Human Untagged Clone - SC303822

 RefSeq Size:
 6011 bp

 RefSeq ORF:
 4032 bp

 Locus ID:
 8831

 UniProt ID:
 Q96PV0

Protein Families: Druggable Genome

6p21.32

MW: 148.3 kDa

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. Allelic variants of this gene are associated with intellectual disability and autism spectrum disorder. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2016]