

Recombinant Human SYNGAP1 Protein, His-tagged

Cat. No. SYNGAP1-2745H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SYNGAP1 Protein (Gly443-Asn635) with a N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Gly443-Asn635
Description	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.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 25.7 kDa Accurate Molecular Mass: 26 kDa

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Endotoxin	<1.0 EU per 1g (determined by the LAL method).
Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	SYNGAP1 synaptic Ras GTPase activating protein 1 [Homo sapiens (human)]
Official Symbol	SYNGAP1
Synonyms	SYNGAP1; synaptic Ras GTPase activating protein 1; synaptic Ras GTPase activating protein 1 homolog (rat); ras GTPase-activating protein SynGAP; KIAA1938; RASA5; SYNGAP; neuronal RasGAP; synaptic Ras GTPase-activating protein 1; synaptic Ras GTPase activating protein, 135kDa; synaptic Ras GTPase activating protein 1 homolog; MRD5; RASA1; DKFZp761G1421;

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Gene ID	8831
mRNA Refseq	NM_006772
Protein Refseq	NP_006763
MIM	603384
UniProt ID	Q96PV0

