

Anti-SYNGAP1 Antibody (Monoclonal, 33S57)

Catalog Number: M04862-1

About Syngap1

SynGAP is a synaptic GTPase-activating protein selectively expressed in the brain and found at higher concentrations specifically at excitatory synapses in the mammalian forebrain. SynGAP has a PH domain, a C2 domain, and a highly conserved RasGAP domain, which negatively regulates both Ras activity and its downstream signaling pathways. SynGAP interacts with the PDZ domains of SAP102, as well as PSD95, a postsynaptic scaffolding protein that couples SynGAP to NMDA receptors (1). SynGAP is phosphorylated by Ca²⁺/calmodulin-dependent protein kinase II (CaMKII) at Ser765 and Ser1123, among other sites (2,3). Phosphorylation of SynGAP results in stimulation of the GTPase activity of Ras, and PSD95 dependent CaMKII phosphorylation of SynGAP increases after transient brain ischemia (1,4). SynGAP is implicated in NMDAR- and CaMKII-dependent regulation of AMPAR trafficking and plays an important role in synaptic plasticity (3,5). SynGAP is critical during neuronal development as mice lacking SynGAP protein die postnatally. Furthermore, SynGAP mutant mice have reduced long-term potentiation (LTP) and perform poorly in spatial memory tasks (6).

Overview

Product Name	Anti-SYNGAP1 Antibody (Monoclonal, 33S57)
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-SYNGAP1 Antibody (Monoclonal, 33S57) catalog # M04862-1. Tested in WB, IHC, IF applications. This antibody reacts with Mouse, Rat.
Application	IF, IHC, WB
Clonality	Monoclonal 33S57
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	F6SEU4

Technical Details

Immunogen	Synthetic peptide within Human SynGAP aa 1296-1341.
Form	Liquid
Concentration	500 ug/ml

Purification	Protein A affinity purified.
Suggested Dilutions	Western blot, 1:500-2000 Immunohistochemistry, 1:50-200 Immunofluorescence, 1:50-200

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-SYNGAP1 Antibody (Monoclonal, 33S57)

For Research Use Only. Not for use in diagnostic procedures.