Datasheet for ABIN7601169

anti-SYNGAP1 antibody (AA 3-1175)

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Overview

Quantity:	100 µg
Target:	SYNGAP1
Binding Specificity:	AA 3-1175
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SYNGAP1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS)

Product Details

Purpose:	Anti-SYNGAP1 Antibody Picoband®
Immunogen:	E.coli-derived human SYNGAP1 recombinant protein (Position: R3-R1175). Human SYNGAP1 shares 99% and 99.1% amino acid (aa) sequence identity with mouse and rat SYNGAP1, respectively.
Characteristics:	Anti-SYNGAP1 Antibody Picoband® (ABIN7601169). Tested in WB, Flow Cytometry, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	SYNGAP1
Alternative Name:	SYNGAP1 (SYNGAP1 Products)
Background:	Synaptic Ras GTPase-activating protein 1, also known as synaptic Ras-GAP 1 or SYNGAP1, is a protein that in humans is encoded by the SYNGAP1 gene. 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.
Molecular Weight:	148 kDa
Gene ID:	8831
Pathways:	Regulation of long-term Neuronal Synaptic Plasticity

Application Details

Application Notes:	Western blot, 0.25-0.5 µg/mL, Mouse, Rat Flow Cytometry (Fixed), 1-3 µg/1x10^6 cells, Human ELISA, 0.1-0.5 µg/mL, - 1. Berryer, M. H., Hamdan, F. F., Klitten, L. L., Moller, R. S., Carmant, L., Schwartzentruber, J., Patry, L., Dobrzeniecka, S., Rochefort, D., Neugnot-Cerioli, M., Lacaille, J.-C., Niu, Z., and 15 others. Mutations in SYNGAP1 cause intellectual disability, autism, and a specific form of epilepsy by inducing haploinsufficiency. Hum. Mutat. 34: 385-394, 2013. 2. Carvill, G. L., Heavin, S. B., Yendle, S. C., McMahon, J. M., O'Roak, B. J., Cook, J., Khan, A., Dorschner, M. O., Weaver, M., Calvert, S., Malone, S., Wallace, G., and 22 others. Targeted resequencing in epileptic encephalopathies identifies de novo mutations in CHD2 and SYNGAP1. Nature Genet. 45: 825-830, 2013. 3. Chen, H.-J., Rojas-Soto, M., Oguni, A., Kennedy, M. B. A synaptic Ras-GTPase activating protein (p135 SynGAP) inhibited by CaM kinase II. Neuron 20: 895-904, 1998. Note: Erratum: Neuron 33: 151 only, 2002.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Adding 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.