abcam

Product datasheet

Anti-SynGAP antibody [EPR2883Y] - BSA and Azide free ab247491

Recombinant RabMAb

3 Images

Overview

Product name	Anti-SynGAP antibody [EPR2883Y] - BSA and Azide free
Description	Rabbit monoclonal [EPR2883Y] to SynGAP - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB **Unsuitable for:** IHC-P or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab247491 is the carrier-free version of **ab77235**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2883Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab247491 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 147 kDa.

Application notes Is unsuitable for IHC-P or IP.

Target

Function	Major constituent of the PSD essential for postsynaptic signaling. Inhibitory regulator of the Ras-cAMP pathway. Member of the NMDAR signaling complex in excitatory synapses, it may play a role in NMDAR-dependent control of AMPAR potentiation, AMPAR membrane trafficking and synaptic plasticity. Regulates AMPAR-mediated miniature excitatory postsynaptic currents. May be involved in certain forms of brain injury, leading to long-term learning and memory deficits.
Involvement in disease	Defects in SYNGAP1 are the cause of mental retardation autosomal dominant type 5 (MRD5) [MIM:612621]. Mental retardation is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptative behavior and manifested during the developmental period. MRD5 patients show global developmental delay with delayed motor development, hypotonia, moderate-to-severe mental retardation, and severe language impairment. Autism can be present in some patients.
Sequence similarities	Contains 1 C2 domain. Contains 1 PH domain. Contains 1 Ras-GAP domain.
Post-translational modifications	Phosphorylated by CaM-kinase II. Dephosphorylated upon NMDA receptor activation or SYNGAP1/MPDZ complex disruption.

Images

Western blot - Anti-SynGAP antibody [EPR2883Y] - BSA and Azide free (ab247491)

All lanes : Anti-SynGAP antibody [EPR2883Y] (**ab77235**) at 1/1000 dilution

Lane 1 : Hippocampus (Rat) Tissue Lysate
Lane 2 : Cortex (Rat) Tissue Lysate
Lane 3 : Hippocampus (Mouse) Tissue Lysate
Lane 4 : Cortex (Mouse) Tissue Lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

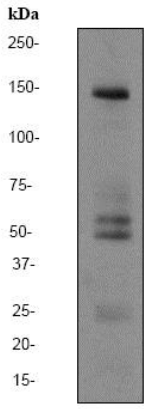
Predicted band size: 147 kDa
Observed band size: 130 kDa

Exposure time: 8 minutes

This data was developed using **ab77235**, the same antibody clone in a different buffer formulation.

This blot was produced using a 3-8% Tris Acetate gel under the TA buffer system. The gel was run at 150V for 60 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with **ab77235** overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution **ab133406**.

The doublet observed in the Western blot image is consistent with the literature (PMID: 9581761).



Western blot - Anti-SynGAP antibody [EPR2883Y] - BSA and Azide free (ab247491)

Anti-SynGAP antibody [EPR2883Y] (**ab77235**) at 1/1000 dilution + fetal brain lysate at 10 µg

Secondary

HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 147 kDa
Observed band size: 147 kDa
Additional bands at: 50 kDa, 55 kDa. We are unsure as to the identity of these extra bands.

This data was developed using **ab77235**, the same antibody clone in a different buffer formulation.

Anti-SynGAP antibody [EPR2883Y] - BSA and Azide free (ab247491)

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