abcam

Product datasheet

Anti-SynGAP antibody [EPR2883Y] ab77235

Recombinant RabMAb

7 References 3 Images

Overview

Product name	Anti-SynGAP antibody [EPR2883Y]
Description	Rabbit monoclonal [EPR2883Y] to SynGAP
Host species	Rabbit
Tested applications	**Suitable for:** WB **Unsuitable for:** IHC-P or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human SynGAP (C terminal). The exact sequence is proprietary.
Positive control	Fetal brain lysate
General notes	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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2883Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab77235 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		1/1000 - 1/5000. 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] (ab77235)

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.

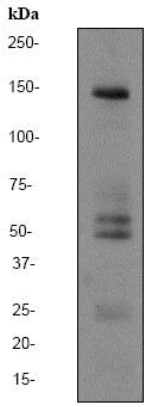
Performed under reducing conditions.

Predicted band size: 147 kDa
Observed band size: 130,148 kDa

Exposure time: 8 minutes

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] (ab77235)

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.

Anti-SynGAP antibody [EPR2883Y] (ab77235)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors