abcam

Product datasheet

Anti-CBLN1 antibody [EPR13649] ab181379

Recombinant RabMAb

1 References 2 Images

Overview

Product name	Anti-CBLN1 antibody [EPR13649]
Description	Rabbit monoclonal [EPR13649] to CBLN1
Host species	Rabbit
Tested applications	**Suitable for:** WB **Unsuitable for:** Flow Cyt,ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human CBLN1 aa 50-150 (Cysteine residue). The exact sequence is proprietary. Database link: **P23435**
Positive control	Human cerebellum, Human fetal brain tissue lysate; Neuro-2a, U87-MG, SH-SY5Y, C6 and Raw 264.7 cell lysates
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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
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	Tissue culture supernatant

Clonality	Monoclonal
Clone number	EPR13649
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181379 in the following tested applications.

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

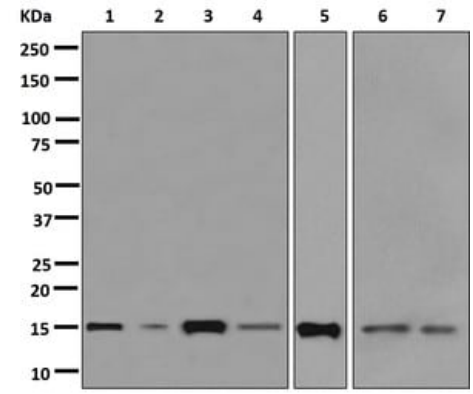
Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 16 kDa (predicted molecular weight: 21 kDa).

Application notes Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

Target

Function	Required for synapse integrity and synaptic plasticity. During cerebellar synapse formation, essential for the formation and maintenance of parallel fiber and Purkinje cell synapses. When parallel fibers make contact with Purkinje spines, CBLN1 interaction with GRID2 triggers the recruitment of NRXN1 and secretory vesicles to the sites of contact. NRXN1-CBLN1-GRID2 signaling induces presynaptic morphological changes, which may further accumulate pre- and postsynaptic components to promote bidirectional maturation of parallel fiber - Purkinje cell functionnally active synapses by a positive feedback mechanism. Required for CBLN3 export from the endoplasmic reticulum and secretion. The cerebellin peptide exerts neuromodulatory functions. Directly stimulates norepinephrine release via the adenylate cyclase/PKA-dependent signaling pathway; and indirectly enhances adrenocortical secretion in vivo, through a paracrine mechanism involving medullary catecholamine release.
Tissue specificity	In the Purkinje cells postsynaptic structures. In the cerebellum, cerebellin is much less abundant than [des-Ser1]-cerebellin.
Sequence similarities	Contains 1 C1q domain.
Developmental stage	Low at birth, the cerebellin concentration increases between day 5 and 15, and reaches peak values between day 21 and 56.
Post-translational modifications	The proteolytic processing to yield cerebellin seems to occur either prior to the secretion by presynaptic neurons and subsequent oligomerization or in some other location after release of the mature protein.
Cellular localization	Secreted. Cell junction > synapse > postsynaptic cell membrane.

Images



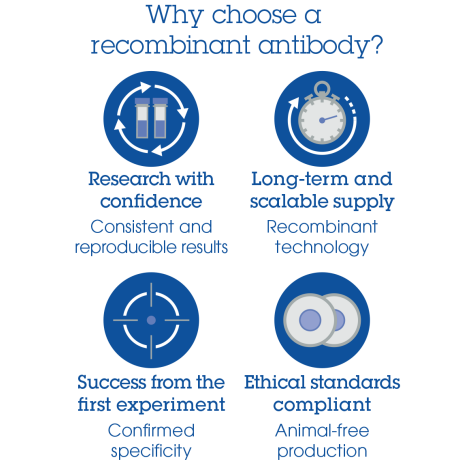
Western blot - Anti-CBLN1 antibody [EPR13649] (ab181379)

All lanes : Anti-CBLN1 antibody [EPR13649] (ab181379) at 1/1000 dilution

Lane 1 : Human cerebellum tissue lysate
Lane 2 : Human fetal brain tissue lysate
Lane 3 : Neuro-2a cell lysate
Lane 4 : U87-MG cell lysate
Lane 5 : SH-SY5Y cell lysate
Lane 6 : C6 cell lysate
Lane 7 : Raw 264.7 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 21 kDa



Anti-CBLN1 antibody [EPR13649] (ab181379)

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