

ARG43082 anti-CBLN1 / Cerebellin 1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CBLN1 / Cerebellin 1
Tested Reactivity	Hu, Ms, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CBLN1 / Cerebellin 1
Species	Human
Immunogen	KLH-conjugated synthetic peptide within the C-terminal region of Human CBLN1 / Cerebellin 1.
Conjugation	Un-conjugated
Alternate Names	Cerebellin-1; CER; Precerebellin

Application Instructions

Application table	<table> <tr> <th>Application</th><th>Dilution</th></tr> <tr> <td>WB</td><td>1:500 - 1:1000</td></tr> </table>	Application	Dilution	WB	1:500 - 1:1000
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WB	1:500 - 1:1000				
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.				
Positive Control	HEK293T, SP2/0 and PC12				
Observed Size	~ 21 kDa				

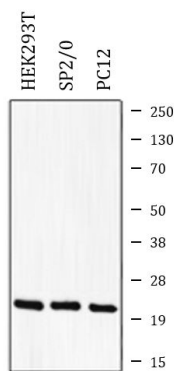
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.42% Potassium phosphate (pH 7.3), 0.87% NaCl, 0.01% Sodium azide and 30% Glycerol.
Preservative	0.01% Sodium azide
Stabilizer	30% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CBLN1
Gene Full Name	cerebellin 1 precursor
Background	This gene encodes a cerebellum-specific precursor protein, precerebellin, with similarity to the globular (non-collagen-like) domain of complement component C1qB. Precerebellin is processed to give rise to several derivatives, including the hexadecapeptide, cerebellin, which is highly enriched in postsynaptic structures of Purkinje cells. Cerebellin has also been found in human and rat adrenals, where it has been shown to enhance the secretory activity of this gland. [provided by RefSeq, Aug 2008]
Function	<p>Required for synapse integrity and synaptic plasticity. During cerebellar synapse formation, essential for the matching and maintenance of pre- and post-synaptic elements at parallel fiber-Purkinje cell synapses, the establishment of the proper pattern of climbing fiber-Purkinje cell innervation, and induction of long-term depression at parallel fiber-Purkinje cell synapses. Plays a role as a synaptic organizer that acts bidirectionally on both pre- and post-synaptic components. On the one hand induces accumulation of synaptic vesicles in the pre-synaptic part by binding with NRXN1 and in other hand induces clustering of GRID2 and its associated proteins at the post-synaptic site through association of GRID2. NRXN1-CBLN1-GRID2 complex directly induces parallel fiber protrusions that encapsulate spines of Purkinje cells leading to accumulation of GRID2 and synaptic vesicles. Required for CBLN3 export from the endoplasmic reticulum and secretion (By similarity). NRXN1-CBLN1-GRID2 complex mediates the D-Serine-dependent long term depression signals and AMPA receptor endocytosis (PubMed:27418511).</p> <p>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 (By similarity). [UniProt]</p>
Calculated Mw	21 kDa
PTM	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. [UniProt]
Cellular Localization	Secreted. Cell junction, synapse, postsynaptic cell membrane. [UniProt]

Images



ARG43082 anti-CBLN1 / Cerebellin 1 antibody WB image

Western blot: HEK293T, SP2/O and PC12 whole cell lysates stained with ARG43082 anti-CBLN1 / Cerebellin 1 antibody.