

# Rabbit Anti-CBLN1 antibody

# SL11814R

D 1 ANI	CDLM
Product Name:	CBLN1
Chinese Name:	<b>小</b> 脑肽1 <b>抗体</b>
Alias:	CBLN 1; Cerebellin 1; Cerebellin 1 precursor; Cerebellin1; Precerebellin;
	CBLN1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Pig, Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-
	500 (Paraffin sections need antigen repair)
	not yet tested in other applications.
	optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	19kDa
Cellular localization:	The cell membraneSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CBLN1:51-150/193
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized
	antibody is stable at room temperature for at least one month and for greater than a year
	when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of
	antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	Cerebellin (CER), which was originally isolated from rat cerebellum, is a
	hexadecapeptide derived from a larger precursor Cerebellin 1, also designated
	precerebellin 1 or Cbln1. Four propeptides, Cerebellin 1, Cerebellin 2 (Cbln2),
	Cerebellin 3 (Cbln3), and Cerebellin 4 (Cbln4), comprise the precerebellin subfamily
	within the C1q protein family. Cerebellin family members act as transneuronal
	regulators of synapse development and synaptic plasticity in various brain regions. CER

and it metabolite des-Ser1-cerebellin are also expressed in several extra-cerebellar tissues, including adrenal gland. Cerebellin 1, 2 and 3 assemble into homomeric and heteromeric complexes, thereby influencing each other's degradation and secretion. Cerebellin 3 is not able to form homomeric complexes, and can only be secreted upon forming a heteromeric complex with Cerebellin 1. Decreased concentrations of CER has been found in the brain of patients with olivopontocerebellar atrophy (OPCA) and Shy-Drager syndrome, suggesting a role for CER in the pathology of these diseases.

#### **Function:**

CBLN1 is required for synapse integrity and synaptic plasticity. It is required for the ER export and secretion of CBLN3. CBLN1 exerts neuromodulatory functions. It 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.

#### **Subunit:**

Homohexamer; disulfide-linked homotrimers. The trimers are assembled via the globular C1q domains. The trimers associate via N-terminal cysteine residues to form disulfide-linked hexamers. Probably forms a heteomeric complex with CBLN3. May interact with CBLN2 and CBLN4

#### **Subcellular Location:**

Secreted. Membrane. Cell junction, synapse.

### Tissue Specificity:

In the Purkinje cells postsynaptic structures. In the cerebellum, cerebellin is much less abundant than [des-Ser1]-cerebellin.

#### 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.

#### Similarity:

Contains 1 C1q domain.

#### **SWISS:**

P23435

#### Gene ID:

869

#### Database links:

Entrez Gene: 869Human

Entrez Gene: 12404Mouse

Entrez Gene: 498922Rat

Omim: 600432Human

SwissProt: P23435Human

SwissProt: Q9R171Mouse

SwissProt: P63182Rat

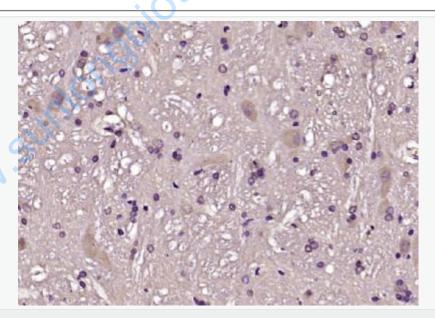
Unigene: 458423Human

<u>Unigene: 4880</u>Mouse

Unigene: 24402Rat

## Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



#### Picture:

Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CBLN1) Polyclonal Antibody, Unconjugated

(SL11814R) at 1:200 overnight at 4°C, followed by operating according to SP
Kit(Rabbit) (sp-0023) instructions and DAB staining.

