

# Cerebellin 3 (P-16): sc-69545

## BACKGROUND

Cerebellin (CER), which was originally isolated from rat cerebellum, is a hexadecapeptide derived from a larger precursor called 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. Cerebellin and its metabolite, des-Ser<sup>1</sup>Cer, 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 Cerebellin have been found in the brain of patients with olivopontocerebellar atrophy (OPCA) and Shy-Drager syndrome, suggesting a role for Cerebellin in the pathology of these diseases.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CBLN3 (human) mapping to 14q12; Cbln3 (mouse) mapping to 14 C3.

## SOURCE

Cerebellin 3 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cerebellin 3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69545 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Cerebellin 3 (P-16) is recommended for detection of Cerebellin 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cerebellin 3 (P-16) is also recommended for detection of Cerebellin 3 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Cerebellin 3 siRNA (h): sc-72871, Cerebellin 3 siRNA (m): sc-72872, Cerebellin 3 shRNA Plasmid (h): sc-72871-SH, Cerebellin 3 shRNA Plasmid (m): sc-72872-SH, Cerebellin 3 shRNA (h) Lentiviral Particles: sc-72871-V and Cerebellin 3 shRNA (m) Lentiviral Particles: sc-72872-V.

Molecular Weight of Cerebellin 3: 22 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.