

Cerebellin 1 (F-14): sc-164050

BACKGROUND

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 sub-family within the C1q protein family. Cerebellin family members act as trans-neuronal regulators of synapse development and synaptic plasticity in various brain regions. CER and its 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.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CBLN1 (human) mapping to 16q12.1; Cbln1 (mouse) mapping to 8 C3.

SOURCE

Cerebellin 1 (F-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cerebellin 1 of human origin.

STORAGE

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

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-164050 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cerebellin 1 (F-14) is recommended for detection of Cerebellin 1 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); non cross-reactive with Cerebellin 2, Cerebellin 3 or Cerebellin 4.

Cerebellin 1 (F-14) is also recommended for detection of Cerebellin 1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Cerebellin 1 siRNA (h): sc-93450, Cerebellin 1 siRNA (m): sc-142295, Cerebellin 1 shRNA Plasmid (h): sc-93450-SH, Cerebellin 1 shRNA Plasmid (m): sc-142295-SH, Cerebellin 1 shRNA (h) Lentiviral Particles: sc-93450-V and Cerebellin 1 shRNA (m) Lentiviral Particles: sc-142295-V.

Molecular Weight of Cerebellin 1: 21 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.