

Cerebellin 4 (Y-23): sc-133453

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(1)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: CBLN4 (human) mapping to 20q13.2; Cbln4 (mouse) mapping to 2 H3.

SOURCE

Cerebellin 4 (Y-23) is an affinity purified rabbit polyclonal antibody raised against synthetic Cerebellin 4 peptide of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

Cerebellin 4 (Y-23) is recommended for detection of Cerebellin 4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Cerebellin 4 siRNA (h): sc-72873, Cerebellin 4 siRNA (m): sc-142297, Cerebellin 4 shRNA Plasmid (h): sc-72873-SH, Cerebellin 4 shRNA Plasmid (m): sc-142297-SH, Cerebellin 4 shRNA (h) Lentiviral Particles: sc-72873-V and Cerebellin 4 shRNA (m) Lentiviral Particles: sc-142297-V.

Molecular Weight (predicted) of Cerebellin 4: 22 kDa.

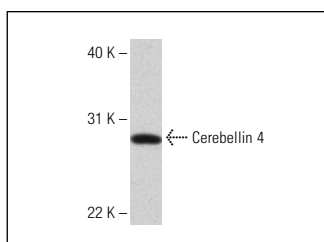
Molecular Weight (observed) of Cerebellin 4: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Cerebellin 4 (Y-23): sc-133453. Western blot analysis of Cerebellin 4 expression in HeLa whole cell lysate.

STORAGE

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

PROTOCOLS

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