CACHD1 (E-18): sc-162622

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BIOTECHNOLOGY
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BACKGROUND

CACHD1 (cache domain containing 1), also known as VWCD1, is a 1,274 amino acid single-pass type I membrane protein belonging to the calcium channel subunit α-2/δ family. Containing two cache domains and a VWFA (von Willebrand factor A) domain, CACHD1 is suggested to be involved in the regulation of voltage-dependent calcium channels. Existing as two iso-forms produced by alternative splicing, CACHD1 is encoded by a gene located on human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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2. Findley, S.D., Tamanaha, M., Clegg, N.J. and Ruohola-Baker, H. 2003. Maelstrom, a *Drosophila* spindle-class gene, encodes a protein that colocalizes with Vasa and RDE1/AGO1 homolog, aubergine, in nuage. Development 130: 859-871.

3. Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.

4. Marzin, Y., Jamet, D., Douet-Guilbert, N., Morel, F., Le Bris, M.J., Morice, P., Abgrall, J.F., Berthou, C. and De Braekeleer, M. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.

CHROMOSOMAL LOCATION

Genetic locus: CACHD1 (human) mapping to 1p31.3; Cachd1 (mouse) mapping to 4 C6.

SOURCE

CACHD1 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CACHD1 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-162622 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CACHD1 (E-18) is recommended for detection of CACHD1 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).

CACHD1 (E-18) is also recommended for detection of CACHD1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CACHD1 siRNA (h): sc-88664, CACHD1 siRNA (m): sc-141967, CACHD1 shRNA Plasmid (h): sc-88664-SH, CACHD1 shRNA Plasmid (m): sc-141967-SH, CACHD1 shRNA (h) Lentiviral Particles: sc-88664-V and CACHD1 shRNA (m) Lentiviral Particles: sc-141967-V.

Molecular Weight of CACHD1: 142 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) Immunofluo-rescence: 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.