

ACBD4 (P-14): sc-137266

BACKGROUND

The acyl-CoA-binding domain-containing protein 4 (ACBD4) is a 268 amino acid protein that contains one ACB (acyl-CoA-binding) domain. It exists as three isoforms, which are produced as a result of alternative splicing events. The gene encoding ACBD4 maps to human chromosome 17, which makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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2. Nusbaum, R., et al. 2006-2007. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. *Breast Dis.* 27: 21-50.
3. Al-Dibbashi, O.Y., et al. 2007. Quantification of N-acetylaspartic acid in urine by LC-MS/MS for the diagnosis of Canavan disease. *J. Inher. Metab. Dis.* 30: 612.
4. Dann, R.B., et al. 2007. Strategies for ovarian cancer prevention. *Obstet. Gynecol. Clin. North Am.* 34: 667-686.
5. Farrell, C.J. and Plotkin, S.R. 2007. Genetic causes of brain tumors: neurofibromatosis, tuberous sclerosis, von Hippel-Lindau, and other syndromes. *Neurol. Clin.* 25: 925-946.
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CHROMOSOMAL LOCATION

Genetic locus: ACBD4 (human) mapping to 17q21.31; Acbd4 (mouse) mapping to 11 E1.

SOURCE

ACBD4 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACBD4 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-137266 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

ACBD4 (P-14) is recommended for detection of ACBD4 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)], 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 other ACBD family members.

ACBD4 (P-14) is also recommended for detection of ACBD4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ACBD4 siRNA (h): sc-93993, ACBD4 siRNA (m): sc-140796, ACBD4 shRNA Plasmid (h): sc-93993-SH, ACBD4 shRNA Plasmid (m): sc-140796-SH, ACBD4 shRNA (h) Lentiviral Particles: sc-93993-V and ACBD4 shRNA (m) Lentiviral Particles: sc-140796-V.

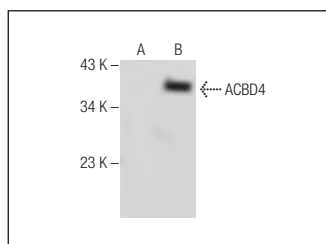
Molecular Weight of ACBD4 isoforms 1/2/3: 30/35/38 kDa.

Positive Controls: ACBD4 (h): 293T Lysate: sc-115756.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ACBD4 (P-14): sc-137266. Western blot analysis of ACBD4 expression in non-transfected: sc-117752 (A) and human ACBD4 transfected: sc-115756 (B) 293T whole cell lysates.

RESEARCH USE

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

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Try **ACBD4 (G-8): sc-514694**, our highly recommended monoclonal alternative to ACBD4 (P-14).