

# ACBD7 (E-14): sc-244859

## BACKGROUND

ACBD7 (acyl-CoA binding domain containing 7), also known as acyl-Coenzyme A binding domain containing 7, is an 88 amino acid protein belonging to the ACBD7 family. Encoded by a gene that maps to human chromosome 10p13, ACBD7 contains one ACB (acyl-CoA-binding) domain and participates in acyl-CoA binding and tissue-specific expression. Expressed in spleen, thymus and brain, ACBD7 is very similar to ACBD1 in predicted amino acid sequence. Due to its expression in brain, ACBD7 was formerly coined brain ACBP (B-ACBP). Early evolutionary existence of ACBD7 may indicate a fundamental role in acyl-CoA metabolism, ceramide synthesis and signaling. ACBD7 is highly conserved across phylums.

## REFERENCES

- Knudsen, J., Neergaard, T.B., Gaigg, B., Jensen, M.V. and Hansen, J.K. 2000. Role of acyl-CoA binding protein in acyl-CoA metabolism and acyl-CoA-mediated cell signaling. *J. Nutr.* 130: 294S-298S.
- Burton, M., Rose, T.M., Faergeman, N.J. and Knudsen, J. 2005. Evolution of the acyl-CoA binding protein (ACBP). *Biochem. J.* 392: 299-307.
- Dumont, D., Noben, J.P., Verhaert, P., Stinissen, P. and Robben, J. 2006. Gel-free analysis of the human brain proteome: application of liquid chromatography and mass spectrometry on biopsy and autopsy samples. *Proteomics* 6: 4967-4977.
- Faergeman, N.J., Wadum, M., Feddersen, S., Burton, M., Kragelund, B.B. and Knudsen, J. 2007. Acyl-CoA binding proteins; structural and functional conservation over 2000 MYA. *Mol. Cell. Biochem.* 299: 55-65.
- Szmit, S., Jank, M., Maciejewski, H., Grabowski, M., Glowczynska, R., Majewska, A., Filipiak, K.J., Motyl, T. and Opolski, G. 2010. Gene expression profiling in peripheral blood nuclear cells in patients with refractory ischaemic end-stage heart failure. *J. Appl. Genet.* 51: 353-368.
- Fan, J., Liu, J., Culty, M. and Papadopoulos, V. 2010. Acyl-coenzyme A binding domain containing 3 (ACBD3; PAP7; GCP60): an emerging signaling molecule. *Prog. Lipid Res.* 49: 218-234.
- SWISS-PROT/TrEMBL (Q8N6N7). World Wide Web URL: <http://www.uniprot.org/uniprot/Q8N6N7>

## CHROMOSOMAL LOCATION

Genetic locus: ACBD7 (mouse) mapping to 2 A1.

## SOURCE

ACBD7 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACBD7 of mouse 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-244859 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ACBD7 (E-14) is recommended for detection of ACBD7 of mouse and rat 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 other ACBD family members.

Suitable for use as control antibody for ACBD7 siRNA (m): sc-140799, ACBD7 shRNA Plasmid (m): sc-140799-SH and ACBD7 shRNA (m) Lentiviral Particles: sc-140799-V.

Molecular Weight of ACBD7: 10 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.