

ACAM (E-15): sc-241177

BACKGROUND

ACAM (adipocyte adhesion molecule), also known as ASAM or CLMP (cox-sackie- and adenovirus receptor-like (CAR-) membrane protein), is a 373 amino acid tight junction single-pass type I membrane protein that belongs to the CTX (cortical thymocyte marker in *Xenopus*) family and is predominantly expressed in epithelial cells and in white adipose tissue. ACAM is upregulated in mature adipocytes and adipocyte tissue of obese individuals. Considered a novel cell-cell adhesion molecule, ACAM is regulated by TTP through the JNK signaling cascade and may be involved in junctional barrier function. ACAM contains a signal peptide, V-type (variable) and C2-type (constant) Ig domains, a single transmembrane segment and a cytoplasmic tail.

REFERENCES

1. Katoh, M. and Katoh, M. 2003. IGSF11 gene, frequently up-regulated in intestinal-type gastric cancer, encodes adhesion molecule homologous to CXADR, FLJ22415 and ESAM. *Int. J. Oncol.* 23: 525-531.
2. Raschperger, E., et al. 2004. CLMP, a novel member of the CTX family and a new component of epithelial tight junctions. *J. Biol. Chem.* 279: 796-804.
3. Coyne, C.B. and Bergelson, J.M. 2005. CAR: a virus receptor within the tight junction. *Adv. Drug Deliv. Rev.* 57: 869-882.
4. Eguchi, J., et al. 2005. Identification of adipocyte adhesion molecule (ACAM), a novel CTX gene family, implicated in adipocyte maturation and development of obesity. *Biochem. J.* 387: 343-353.
5. Raschperger, E., et al. 2006. The coxsackie- and adenovirus receptor (CAR) is an *in vivo* marker for epithelial tight junctions, with a potential role in regulating permeability and tissue homeostasis. *Exp. Cell Res.* 312: 1566-1580.

CHROMOSOMAL LOCATION

Genetic locus: ASAM (human) mapping to 11q24.1; 9030425E11Rik (mouse) mapping to 9 A5.1.

SOURCE

ACAM (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of ACAM 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-241177 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

ACAM (E-15) is recommended for detection of ACAM 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).

ACAM (E-15) is also recommended for detection of ACAM in additional species, including canine and porcine.

Suitable for use as control antibody for ACAM siRNA (h): sc-96302, ACAM siRNA (m): sc-140794, ACAM shRNA Plasmid (h): sc-96302-SH, ACAM shRNA Plasmid (m): sc-140794-SH, ACAM shRNA (h) Lentiviral Particles: sc-96302-V and ACAM shRNA (m) Lentiviral Particles: sc-140794-V.

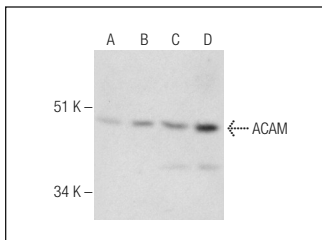
Molecular Weight of ACAM: 45 kDa.

Positive Controls: ACAM (m): 293T Lysate: sc-118187, A-431 whole cell lysate: sc-2201 or HISM cell lysate: sc-2229.

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



ACAM (E-15): sc-241177. Western blot analysis of ACAM expression in non-transfected 293T: sc-117752 (A), mouse ACAM transfected 293T: sc-118187 (B), A-431 (C) and HISM (D) whole cell lysates.

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.