

ACAM (G-20): sc-241178

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

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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.
6. Sze, K.L., et al. 2008. Post-transcriptional regulation of CLMP mRNA is controlled by tristetraprolin in response to TNF α via c-Jun N-terminal kinase signalling. *Biochem. J.* 410: 575-583.
7. Sze, K.L., et al. 2008. Expression of CLMP, a novel tight junction protein, is mediated via the interaction of GATA with the Kruppel family proteins, KLF4 and Sp1, in mouse TM4 Sertoli cells. *J. Cell. Physiol.* 214: 334-344.

CHROMOSOMAL LOCATION

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

SOURCE

ACAM (G-20) 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 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241178 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACAM (G-20) 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), 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 (G-20) is also recommended for detection of ACAM in additional species, including equine, canine, bovine 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.

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 or our catalog for detailed protocols and support products.