SANTA CRUZ BIOTECHNOLOGY, INC.

Adipsin (M-120): sc-50419

BACKGROUND

Adipsin is the mouse homolog of the previously described human complement Factor D, a serine protease, which is now designated human Adipsin. Human Adipsin is highly expressed in and secreted by adipose tissue, and it has also been found in monocytes and macrophages. Rodent Adipsin has only been detected in high levels in adipose tissue. It has been shown that complement factor B, when complexed with activated complement component C3, is cleaved by Adipsin. While low expression of Adipsin has been confirmed in obese mice with hypothalamic defects, this inverse correlation between Adipsin expression and obesity has not been demonstrated in humans.

REFERENCES

1. Lesavre, P.H., et al. 1979. The alternative pathway C3/C5 convertase: chemical basis of Factor B activation. J. Immunol. 123: 529-534.
2. Niemann, M.A., et al. 1984. Amino acid sequence of human D of the alternative complement pathway. Biochem. 23: 2482-2486.
3. Rosen, B.S., et al. 1989. Adipsin and complement Factor D activity: an immune-related defect in obesity. Science 244: 1483-1487.
4. White, R.T., et al. 1992. Human Adipsin is identical to complement Factor D and is expressed at high levels in adipose tissue. J. Biol. Chem. 267: 9210-9213.

CHROMOSOMAL LOCATION

Genetic locus: Cfd (mouse) mapping to 10 C1.

SOURCE

Adipsin (M-120) is a rabbit polyclonal antibody raised against amino acids 85-204 mapping within an internal region of Adipsin 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.

APPLICATIONS

Adipsin (M-120) is recommended for detection of Adipsin of mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Adipsin siRNA (m): sc-29647, Adipsin shRNA Plasmid (m): sc-29647-SH and Adipsin shRNA (m) Lentiviral Particles: sc-29647-V.

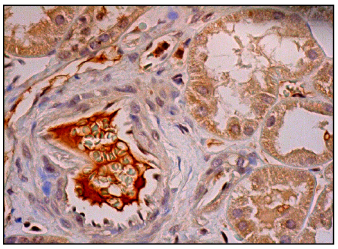
Molecular Weight of Adipsin: 28 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, WEHI-231 whole cell lysate: sc-2213 or C3H/10T1/2 cell lysate: sc-3801.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Adipsin (M-120): sc-50419. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules and staining of plasma in blood vessels.

SELECT PRODUCT CITATIONS

1. Marchildon, F., St-Louis, C., Akter, R., Roodman, V. and Wiper-Bergeron, N.L. 2010. Transcription factor Smad3 is required for the inhibition of adipogenesis by retinoic acid. J. Biol. Chem. 285: 13274-13284.

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.