

Adipsin (P-16): sc-12402

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. *Biochemistry* 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.

CHROMOSOMAL LOCATION

Genetic locus: CFD (human) mapping to 19p13.3; Cfd (mouse) mapping to 10 C1.

SOURCE

Adipsin (P-16) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-12402 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Adipsin (P-16) is recommended for detection of Adipsin 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), 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 (h): sc-29646, Adipsin siRNA (m): sc-29647, Adipsin shRNA Plasmid (h): sc-29646-SH, Adipsin shRNA Plasmid (m): sc-29647-SH, Adipsin shRNA (h) Lentiviral Particles: sc-29646-V and Adipsin shRNA (m) Lentiviral Particles: sc-29647-V.

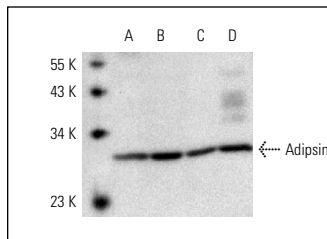
Molecular Weight of Adipsin: 28 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, Jurkat whole cell lysate: sc-2204 or 3T3-L1 cell lysate: sc-2243.

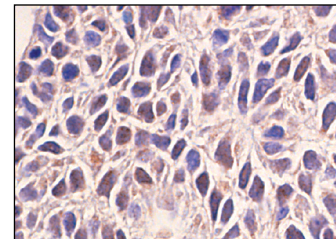
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Adipsin (P-16): sc-12402. Western blot analysis of Adipsin expression in NAMALWA (A), Jurkat (B), 3T3-L1 (C) and differentiated 3T3-L1 (D) whole cell lysates.



Adipsin (P-16): sc-12402. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor showing nuclear staining.

SELECT PRODUCT CITATIONS

1. Wiper-Bergeron, N., et al. 2003. Stimulation of preadipocyte differentiation by steroid through targeting of an HDAC1 complex. *EMBO J.* 22: 2135-2145.
2. Chrast, R., et al. 2004. Complement factors in adult peripheral nerve: a potential role in energy metabolism. *Neurochem. Int.* 45: 353-359.
3. Davies, J., et al. 2005. Adipocytic differentiation and liver X receptor pathways regulate the accumulation of triacylglycerols in human vascular smooth muscle cells. *J. Biol. Chem.* 280: 3911-3919.
4. Wiper-Bergeron, N., et al. 2007. Glucocorticoid-stimulated preadipocyte differentiation is mediated through acetylation of C/EBPβ by GCN5. *Proc. Natl. Acad. Sci. USA* 104: 2703-2708.
5. Pi, J., et al. 2010. Deficiency in the nuclear factor E2-related factor-2 transcription factor results in impaired adipogenesis and protects against diet-induced obesity. *J. Biol. Chem.* 285: 9292-9300.
6. Rigamonti, A., et al. 2011. Rapid cellular turnover in adipose tissue. *PLoS ONE* 6: e17637.

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.



Try **Adipsin (D10/4): sc-47683** or **Adipsin (D-8): sc-376015**, our highly recommended monoclonal alternatives to Adipsin (P-16).