

# Adipsin (H13/11): sc-47735

## 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.
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.
5. Choy, L.N., et al. 1992. Adipsin and an endogenous pathway of complement from adipose cells. *J. Biol. Chem.* 267: 12736-12741.
6. Platt, K.A., et al. 1994. Independent regulation of adipose tissue-specificity and obesity response of the adipsin promoter in transgenic mice. *J. Biol. Chem.* 269: 28558-28562.
7. Miner, J.L., et al. 2001. Expression and complement d activity of porcine adipsin. *Protein Expr. Purif.* 23: 14-21.
8. Searfoss, G.H., et al. 2003. Adipsin, a biomarker of gastrointestinal toxicity mediated by a functional  $\gamma$ -secretase inhibitor. *J. Biol. Chem.* 278: 46107-46116.
9. Ukkola, O., et al. 2003. Genetic variation at the adipsin locus and response to long-term overfeeding. *Eur. J. Clin. Nutr.* 57: 1073-1078.

## CHROMOSOMAL LOCATION

Genetic locus: CFD (human) mapping to 19p13.3.

## SOURCE

Adipsin (H13/11) is a mouse monoclonal antibody raised against complement protein factor D purified from human serum.

## PRODUCT

Each vial contains 200  $\mu$ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Adipsin (H13/11) is recommended for detection of Adipsin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Adipsin siRNA (h): sc-29646, Adipsin shRNA Plasmid (h): sc-29646-SH and Adipsin shRNA (h) Lentiviral Particles: sc-29646-V.

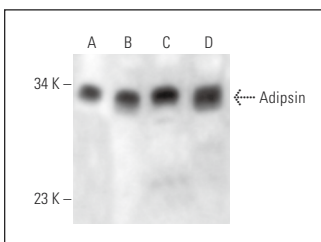
Molecular Weight of Adipsin: 28 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, Jurkat whole cell lysate: sc-2204 or THP-1 cell lysate: sc-2238.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml).

## DATA



Adipsin (H13/11): sc-47735. Western blot analysis of Adipsin expression in NAMALWA (A), Jurkat (B), THP-1 (C) and A549 (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](http://www.scbt.com) for detailed protocols and support products.