

# Adipsin (K-21): sc-12399

## 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/macrophages. Rodent Adipsin has only been detected in high levels in adipose tissue. Complement Factor B, when complexed with activated complement component C3, has been shown to be cleaved by Adipsin. Low expression of Adipsin has been shown in obese mice with hypothalamic defects, suggesting that obesity may be caused as a result of this systemic disorder.

## 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.
5. Choy, L.N., et al. 1992. Adipsin and an endo-genous 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Adipsin (K-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Adipsin 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-12399 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Adipsin (K-21) is recommended for detection of Adipsin (also designated complement factor D) of 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).

Suitable for use as control antibody for Adipsin siRNA (h): sc-29646.

Molecular Weight of non-glycosylated Adipsin: 28 kDa.

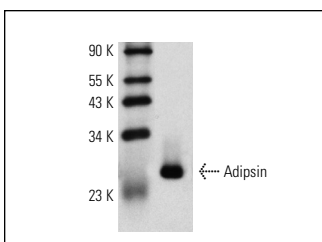
Molecular Weight of glycosylated Adipsin: 45 kDa.

Positive Controls: human lung tumor, NAMALWA cell lysate: sc-2234 or Jurkat whole cell lysate: sc-2204.

## 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



Adipsin (K-21): sc-12399. Western blot analysis of purified human Adipsin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **Adipsin (D10/4): sc-47683** or **Adipsin (D-8): sc-376015**, our highly recommended monoclonal alternatives to Adipsin (K-21).