

# Adipsin (D-8): sc-376015

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Adipsin (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 115-153 within an internal region of Adipsin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376015 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## 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.

## APPLICATIONS

Adipsin (D-8) is recommended for detection of Adipsin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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, 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.

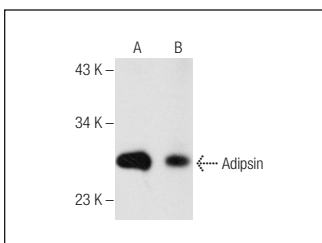
Molecular Weight of Adipsin: 28 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, Jurkat whole cell lysate: sc-2204 or U-937 cell lysate: sc-2239.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Adipsin (D-8): sc-376015. Western blot analysis of Adipsin expression in THP-1 (A) and U-937 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Li, D., et al. 2017. WIP1 phosphatase is a critical regulator of adipogenesis through dephosphorylating PPARγ serine 112. *Cell. Mol. Life Sci.* 74: 2067-2079.
2. Liu, L., et al. 2019. CITED2 mediates the mechanical loading-induced suppression of adipokines in the infrapatellar fat pad. *Ann. N. Y. Acad. Sci.* 1442: 153-164.

## PROTOCOLS

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