

Adipsin (D-3): sc-373860

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 (D-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 79-113 within an internal region of Adipsin of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₃ 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-373860 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Adipsin (D-3) 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.

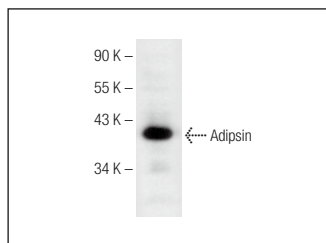
Molecular Weight of Adipsin: 28 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, 3T3-L1 cell lysate: sc-2243 or WEHI-3 cell lysate: sc-3815.

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-3): sc-373860. Western blot analysis of Adipsin expression in WEHI-3 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Racz, B., et al. 2018. A non-retinoid antagonist of retinol-binding protein 4 rescues phenotype in a model of Stargardt disease without inhibiting the visual cycle. *J. Biol. Chem.* 293: 11574-11588.
2. Peng, W., et al. 2018. Elevated HuR in pancreas promotes a pancreatitis-like inflammatory microenvironment that facilitates tumor development. *Mol. Cell. Biol.* 38: e00427-17.
3. Aaron, N., et al. 2021. Adipsin promotes bone marrow adiposity by priming mesenchymal stem cells. *Elife* 10: e69209.

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 for detailed protocols and support products.