

Attractin (H-7): sc-515034

BACKGROUND

Mahogany (MG), originally identified as a protein involved in pigmentation, acts in conjunction with melanocortin receptors to suppress diet-induced obesity. Mahogany contains a single transmembrane domain. It is expressed in a broad range of tissues, including the hypothalamus and pigment cells. Mutations within the mahogany gene were shown to rescue agouti-lethal-yellow mutant mice from obesity. The extracellular domain of mouse mahogany is the ortholog of the human protein Attractin. Attractin (also designated DPPT-L) is a human serum glycoprotein and is a member of the CUB family of cell adhesion and guidance proteins. Attractin is expressed on activated T cells and is released from the cells 48 to 72 hours after activation.

REFERENCES

1. Miller, K.A., Gunn, T.M., Carrasquillo, M.M., Lamoreux, M.L., Galbraith, D.B. and Barsh, G.S. 1997. Genetic studies of the mouse mutations mahogany and mahoganoid. *Genetics* 146: 1407-1415.
2. Duke-Cohan, J.S., Gu, J., McLaughlin, D.F., Xu, Y., Freeman, G.J. and Schlossman, S.F. 1998. Attractin (DPPT-L), a member of the CUB family of cell adhesion and guidance proteins, is secreted by activated human T lymphocytes and modulates immune cell interactions. *Proc. Natl. Acad. Sci. USA* 95: 11336-11341.
3. Dinulescu, D.M., Fan, W., Boston, B.A., McCall, K., Lamoreux, M.L., Moore, K.J., Montagno, J. and Cone, R.D. 1998. Mahogany (MG) stimulates feeding and increases basal metabolic rate independent of its suppression of agouti. *Proc. Natl. Acad. Sci. USA* 95: 12707-12712.
4. Nagle, D.L., McGrail, S.H., Vitale, J., Woolf, E.A., Dussault, B.J., Jr., DiRocco, L., Holmgren, L., Montagno, J., Bork, P., Huszar, D., Fairchild-Huntress, V., Ge, P., Keilty, J., Ebeling, C., Baldini, L., et al. 1999. The mahogany protein is a receptor involved in suppression of obesity. *Nature* 398: 148-152.
5. Gunn, T.M., Miller, K.A., He, L., Hyman, R.W., Davis, R.W., Azarani, A., Schlossman, S.F., Duke-Cohan, J.S. and Barsh, G.S. 1999. The mouse mahogany locus encodes a transmembrane form of human Attractin. *Nature* 398: 152-156.

CHROMOSOMAL LOCATION

Genetic locus: ATRN (human) mapping to 20p13; Atrn (mouse) mapping to 2 F1.

SOURCE

Attractin (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 134-152 within an internal region of Attractin of mouse origin.

PRODUCT

Each vial contains 200 µg IgM 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-515034 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Attractin (H-7) is recommended for detection of Attractin 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).

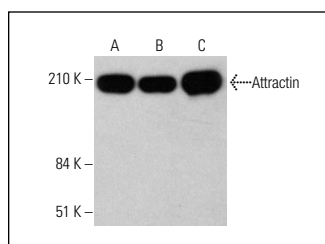
Molecular Weight of Attractin: 175 kDa.

Positive Controls: ALL-SIL whole cell lysate: sc-364356, M1 whole cell lysate: sc-364782 or NIH/3T3 whole cell lysate: sc-2210.

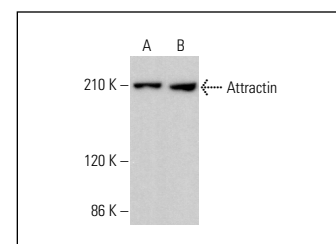
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



Attractin (H-7): sc-515034. Western blot analysis of Attractin expression in ALL-SIL (A), M1 (B) and NIH/3T3 (C) whole cell lysates.



Attractin (H-7): sc-515034. Western blot analysis of Attractin expression in CCRF-CEM (A) and c4 (B) whole cell lysates.

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.