

GS2-like (M-90): sc-98464

BACKGROUND

The adiponutrin family consists of Adiponutrin (ADPN), GS1, GS2, GS2-like, PNPLA1 and adipocyte triglyceride lipase (ATGL), also designated Desnutrin. ADPN, ATGL and GS2 display lipase activity, which is dependent upon the presence of an activated serine residue. GS2, also designated DXS1283E or patatin-like phospholipase domain containing 4 (PNPLA4), is expressed in all tissues that have been examined, including brain, heart, lung, muscle, liver, placenta, spleen, pancreas and kidney. It is also highly expressed in adipose tissue and may contribute to lipolysis in human adipose tissue. GS2-like, also designated patatin-like phospholipase domain containing 5 (PNPLA5), is expressed and regulated similarly to ADPN, although the levels of GS2-like mRNA are lower than ADPN. Overexpression of GS2, GS2-like and ATGL lowers intracellular triglyceride levels. GS2-like and ADPN are strongly induced in the liver of Ob/Ob mice.

REFERENCES

- Lee, W.C., Salido, E. and Yen, P.H. 1994. Isolation of a new gene GS2 (DXS1283E) from a CpG island between STS and KAL1 on Xp22.3. *Genomics* 22: 372-376.
- Baulande, S., Lasnier, F., Lucas, M. and Pairault, J. 2001. Adiponutrin, a transmembrane protein corresponding to a novel dietary- and obesity-linked mRNA specifically expressed in the adipose lineage. *J. Biol. Chem.* 276: 33336-33344.
- Jenkins, C.M., Mancuso, D.J., Yan, W., Sims, H.F., Gibson, B. and Gross, R.W. 2004. Identification, cloning, expression, and purification of three novel human calcium-independent phospholipase A2 family members possessing triacylglycerol lipase and acylglycerol transacylase activities. *J. Biol. Chem.* 279: 48968-48975.
- Liu, Y.M., Moldes, M., Bastard, J.P., Bruckert, E., Viguerie, N., Hainque, B., Basdevant, A., Langin, D., Pairault, J. and Clement, K. 2004. Adiponutrin: A new gene regulated by energy balance in human adipose tissue. *J. Clin. Endocrinol. Metab.* 89: 2684-2689.
- Gao, J. and Simon, M. 2005. Identification of a novel keratinocyte retinyl ester hydrolase as a transacylase and lipase. *J. Invest. Dermatol.* 124: 1259-1266.

CHROMOSOMAL LOCATION

Genetic locus: PNPLA5 (human) mapping to 22q13.31; Pnpla5 (mouse) mapping to 15 E2.

SOURCE

GS2-like (M-90) is a rabbit polyclonal antibody raised against amino acids 91-180 mapping within an internal region of GS2-like of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

GS2-like (M-90) is recommended for detection of GS2-like of mouse, rat and, to a lesser extent, 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 GS2-like siRNA (h): sc-60771, GS2-like siRNA (m): sc-145791, GS2-like shRNA Plasmid (h): sc-60771-SH, GS2-like shRNA Plasmid (m): sc-145791-SH, GS2-like shRNA (h) Lentiviral Particles: sc-60771-V and GS2-like shRNA (m) Lentiviral Particles: sc-145791-V.

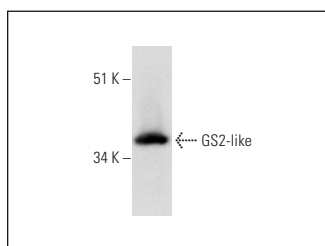
Molecular Weight of GS2-like: 48/35 kDa.

Positive Controls: mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GS2-like (M-90): sc-98464. Western blot analysis of GS2-like expression in mouse liver tissue extract.

STORAGE

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



Try **GS2-like (G-1): sc-376365**, our highly recommended monoclonal alternative to GS2-like (M-90).