

GS1 (h): 293T Lysate: sc-113475

BACKGROUND

The Adiponutrin family consists of Adiponutrin (ADPN), adipocyte triglyceride lipase (ATGL, also designated Desnutrin), GS1, GS2, GS2-like and PNPLA1. ADPN, ATGL and GS2 display lipase activity, which is dependent upon the presence of an activated serine residue. GS1, also designated DXF68S1E or haloacid dehalogenase-like hydrolase domain containing 1A (HDHD1A), is a 214-amino acid protein that is detected in human placenta and fibroblasts. The gene which encodes for GS1, HDHD1A, is of interest because it is an X-linked gene that escapes X-inactivation. This characteristic of the HDHD1A gene is particularly important in the understanding of human X chromosome structural organization as well as the mechanism of X-inactivation.

REFERENCES

- Salido, E.C., Yen, P.H., Koprivnikar, K., Yu, L.C. and Shapiro, L.J. 1992. The human enamel protein gene amelogenin is expressed from both the X and the Y chromosomes. *Am. J. Hum. Genet.* 50: 303-316.
- Yen, P.H., Ellison, J., Salido, E.C., Mohandas, T. and Shapiro, L. 1993. Isolation of a new gene from the distal short arm of the human X chromosome that escapes X-inactivation. *Hum. Mol. Genet.* 1: 47-52.
- Soehnge, H., Huang, X., Becker, M., Conover, D. and Stern, M. 1997. Cloning and sequencing of Ribosomal Protein L27a and a gene similar to human GS1 in *Drosophila*. *Gene* 185: 257-263.
- Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 306480. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- van Noort, V., Snel, B. and Huynen, M.A. 2003. Predicting gene function by conserved co-expression. *Trends Genet.* 19: 238-242.
- Wieland, I., Muschke, P. and Wieacker, P. 2003. Further delineation of Wittwer syndrome and refinement of the mapping region. *Am. J. Med. Genet. A* 116: 57-60.
- Gerhard, D.S., Wagner, L., Feingold, E.A., Shenmen, C.M., Grouse, L.H., Schuler, G., Klein, S.L., Old, S., Rasooly, R., Good, P., Guyer, M., Peck, A.M., Derge, J.G., Lipman, D., Collins, F.S., Jang, W., Sherry, S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the mammalian gene collection (MGC). *Genome Res.* 14: 2121-2127.
- Szebeni, J., Baranyi, L., Sávy, S., Bodó, M., Milosevits, J., Alving, C.R. and Bünger, R. 2005. Complement activation-related cardiac anaphylaxis in pigs: role of C5α anaphylatoxin and adenosine in liposome-induced abnormalities in ECG and heart function. *Am. J. Physiol. Heart Circ. Physiol.* 290: H1050-H1058.
- Ostrowski, J., Rubel, T., Wyrwicz, L.S., Mikula, M., Bielasik, A., Butruk, E. and Regula, J. 2006. Three clinical variants of gastroesophageal reflux disease form two distinct gene expression signatures. *J. Mol. Med.* 84: 872-882.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: PUDP (human) mapping to Xp22.31.

PRODUCT

GS1 (h): 293T Lysate represents a lysate of human GS1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

GS1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GS1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

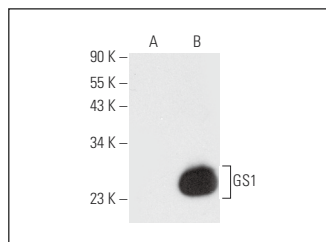
GS1 (D-6): sc-166497 is recommended as a positive control antibody for Western Blot analysis of enhanced human GS1 expression in GS1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

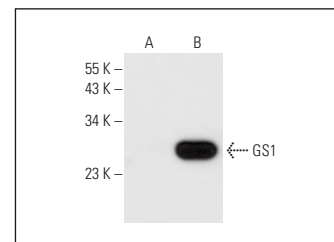
To ensure optimal results, the following support reagents are recommended:

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.

DATA



GS1 (D-6): sc-166497. Western blot analysis of GS1 expression in non-transfected: sc-117752 (A) and human GS1 transfected: sc-113475 (B) 293T whole cell lysates.



GS1 (E-3): sc-166698. Western blot analysis of GS1 expression in non-transfected: sc-117752 (A) and human GS1 transfected: sc-113475 (B) 293T whole cell lysates.

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.