

Hepatic Lipase (h): 293T Lysate: sc-112686

BACKGROUND

The Lipase family belongs to one of the most robust genetic superfamilies found in living organisms that includes esterases and thioesterases. Lipase gene products are related by tertiary structure rather than primary amino acid sequence. Balancing the composition and the transport of lipoproteins in human plasma is essential for normal body function and is mediated in part by Hepatic Lipase, also known as HL or LIPC. Rare deficiencies in Hepatic Lipase have been identified in humans which lead to pathologic levels of circulating lipoprotein particles; this condition is associated with coronary artery disease (CAD). Hepatic Lipase is regulated by thyroid hormones and has a dual function as a triglyceride hydrolase and a ligand/bridging factor for receptor-mediated lipoprotein uptake. Hepatic Lipase localizes to the endothelial surfaces of extrahepatic tissues. The human Hepatic Lipase gene maps to chromosome 15q21.3, spans over 60 kb, contains nine exons and eight introns, and encodes a 499 amino acid protein.

REFERENCES

1. Cai, S.J., Wong, D.M., Chen, S.H. and Chan, L. 1989. Structure of the human hepatic triglyceride lipase gene. *Biochemistry* 28: 8966-8971.
2. Castro Cabezas, M., Halkes, C.J. and Erkelens, D.W. 2001. Obesity and free fatty acids: double trouble. *Nutr. Metab. Cardiovasc. Dis.* 11: 134-142.
3. Duntas, L.H. 2002. Thyroid disease and lipids. *Thyroid* 12: 287-293.
4. Wong, H. and Schotz, M.C. 2002. The lipase gene family. *J. Lipid Res.* 43: 993-999.
5. Shohet, R.V., Vega, G.L., Bersot, T.P., Mahley, R.W., Grundy, S.M., Guerra, R. and Cohen, J.C. 2002. Sources of variability in genetic association studies: insights from the analysis of hepatic lipase (LIPC). *Hum. Mutat.* 19: 536-542.
6. Ji, J., Herbison, C.E., Mamotte, C.D., Burke, V., Taylor, R.R. and van Bockxmeer, F.M. 2002. Hepatic lipase gene -514 C/T polymorphism and premature coronary heart disease. *J. Cardiovasc. Risk* 9: 105-113.
7. Carr, M.C., Ayyobi, A.F., Murdoch, S.J., Deeb, S.S. and Brunzell, J.D. 2002. Contribution of hepatic lipase, lipoprotein lipase, and cholesteryl ester transfer protein to LDL and HDL heterogeneity in healthy women. *Arterioscler. Thromb. Vasc. Biol.* 22: 667-673.
8. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 151670. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
9. LocusLink Report (LocusID: 3990). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: LIPC (human) mapping to 15q21.3.

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.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

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

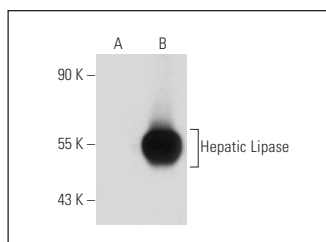
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Hepatic Lipase (XHL3-6): sc-21740 is recommended as a positive control antibody for Western Blot analysis of enhanced human Hepatic Lipase expression in Hepatic Lipase transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

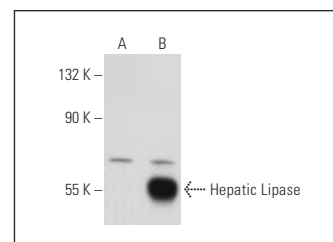
RECOMMENDED SUPPORT REAGENTS

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



Hepatic Lipase (XHL3-6): sc-21740. Western blot analysis of Hepatic Lipase expression in non-transfected: sc-117752 (A) and human Hepatic Lipase transfected: sc-112686 (B) 293T whole cell lysates.



Hepatic Lipase (XHL1-1C): sc-21741. Western blot analysis of Hepatic Lipase expression in non-transfected: sc-117752 (A) and human Hepatic Lipase transfected: sc-112686 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.