

# GPIHBP1 (h): 293T Lysate: sc-112585

## BACKGROUND

Chylomicrons are large lipoprotein particles that consist of triglycerides, phospholipids, cholesterol and proteins. Chylomicrons transport dietary lipids from the intestines to other locations in the body. The triglycerides in chylomicrons are hydrolyzed by lipoprotein lipase (LPL) along the luminal surface of capillaries, mainly in heart, skeletal muscle and adipose tissue. GPIHBP1 (glycosylphosphatidylinositol anchored high density lipoprotein binding protein 1) is a capillary endothelial cell protein that provides a platform for LPL-mediated processing of chylomicrons. Consisting of 184 amino acids, GPIHBP1 is a single-pass membrane protein that may be regulated by dietary factors and by PPAR $\gamma$ . Mutations in the gene encoding GPIHBP1 are linked to chylomicronemia syndrome, a rare genetic disorder caused by LPL deficiency and is characterized by enlarged liver and spleen, inflammation of the pancreas, fatty deposits under the skin and possibly deposits in the retina of the eye.

## REFERENCES

1. Gin, P., et al. 2007. Normal binding of lipoprotein lipase, chylomicrons, and apo-AV to GPIHBP1 containing a G56R amino acid substitution. *Biochim. Biophys. Acta* 1771: 1464-1468.
2. Véniant, M.M., et al. 2008. Lipoprotein size and susceptibility to atherosclerosis—insights from genetically modified mouse models. *Curr. Drug Targets* 9: 174-189.
3. Gin, P., et al. 2008. The acidic domain of GPIHBP1 is important for the binding of lipoprotein lipase and chylomicrons. *J. Biol. Chem.* 283: 29554-29562.
4. Beigneux, A.P., et al. 2008. Glycosylation of Asn-76 in mouse GPIHBP1 is critical for its appearance on the cell surface and the binding of chylomicrons and lipoprotein lipase. *J. Lipid Res.* 49: 1312-1321.
5. Davies, B.S., et al. 2008. The expression of GPIHBP1, an endothelial cell binding site for lipoprotein lipase and chylomicrons, is induced by peroxisome proliferator-activated receptor- $\gamma$ . *Mol. Endocrinol.* 22: 2496-2504.
6. Beigneux, A.P., et al. 2009. GPIHBP1 and lipolysis: an update. *Curr. Opin. Lipidol.* 20: 211-216.
7. Beigneux, A.P., et al. 2009. GPIHBP1, a GPI-anchored protein required for the lipolytic processing of triglyceride-rich lipoproteins. *J. Lipid Res.* 50: S57-S62.
8. Olivecrona, G., et al. 2010. Mutation of conserved cysteines in the Ly6 domain of GPIHBP1 in familial chylomicronemia. *J. Lipid Res.* 51: 1535-1545.
9. Franssen, R., et al. 2010. Chylomicronemia with low postheparin lipoprotein lipase levels in the setting of GPIHBP1 defects. *Circ. Cardiovasc. Genet.* 3: 169-178.

## 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: GPIHBP1 (human) mapping to 8q24.3.

## PRODUCT

GPIHBP1 (h): 293T Lysate represents a lysate of human GPIHBP1 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

GPIHBP1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GPIHBP1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

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

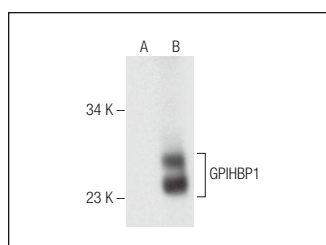
GPIHBP1 (F-4): sc-376598 is recommended as a positive control antibody for Western Blot analysis of enhanced human GPIHBP1 expression in GPIHBP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

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

1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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



GPIHBP1 (F-4): sc-376598. Western blot analysis of GPIHBP1 expression in non-transfected: sc-117752 (A) and human GPIHBP1 transfected: sc-112585 (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](http://www.scbt.com) for detailed protocols and support products.