

GPIHBP1 ELISA

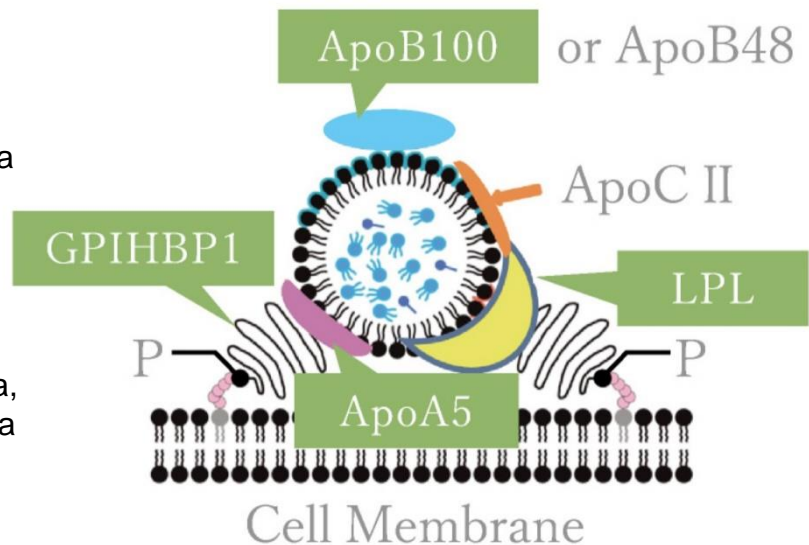
➤ #27179 Human GPIHBP1 (mass)

- * Sample types : Human
- * Measuring Samples : Serum, EDTA-plasma
- * Measurement Range : 7.8 - 500 pg/mL

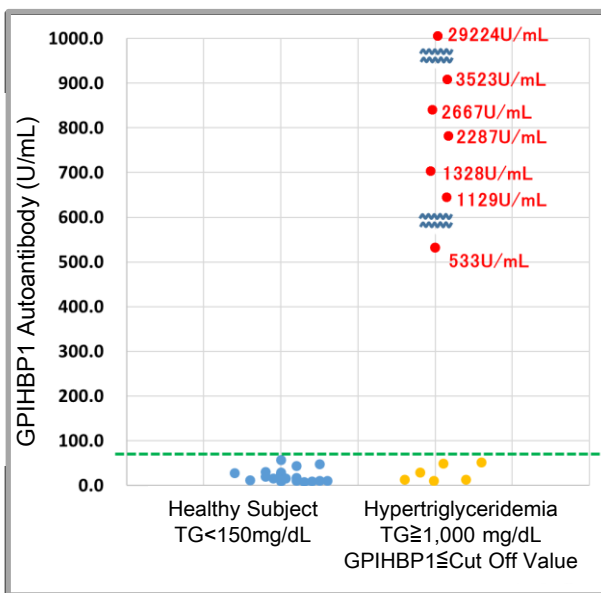
➤ #27267 Human GPIHBP1 Autoantibody

New

- * Sample types : Human
- * Measuring Samples : Serum, EDTA-plasma, Heparin plasma, Post-heparin EDTA-plasma
- * Measurement Range : 0.008 - 0.500 U/mL



GPIHBP1 (Glycosylphosphatidylinositol anchored high density lipoprotein binding protein 1) is an anchor protein that is modified by glycolipid and it has been known that it exists on a capillary endothelial cell membrane and **involves with metabolism of triglyceride rich (TG-rich) lipoprotein (triglyceride)**. GPIHBP1 transports lipoprotein lipase (LPL) synthesized and secreted in adipocyte or skeletal muscle cells into capillary lumen by transcytosis and it binds LPL on the surface of endothelial cells so that GPIHBP1 has an critical role for metabolizing TG-rich lipoprotein.



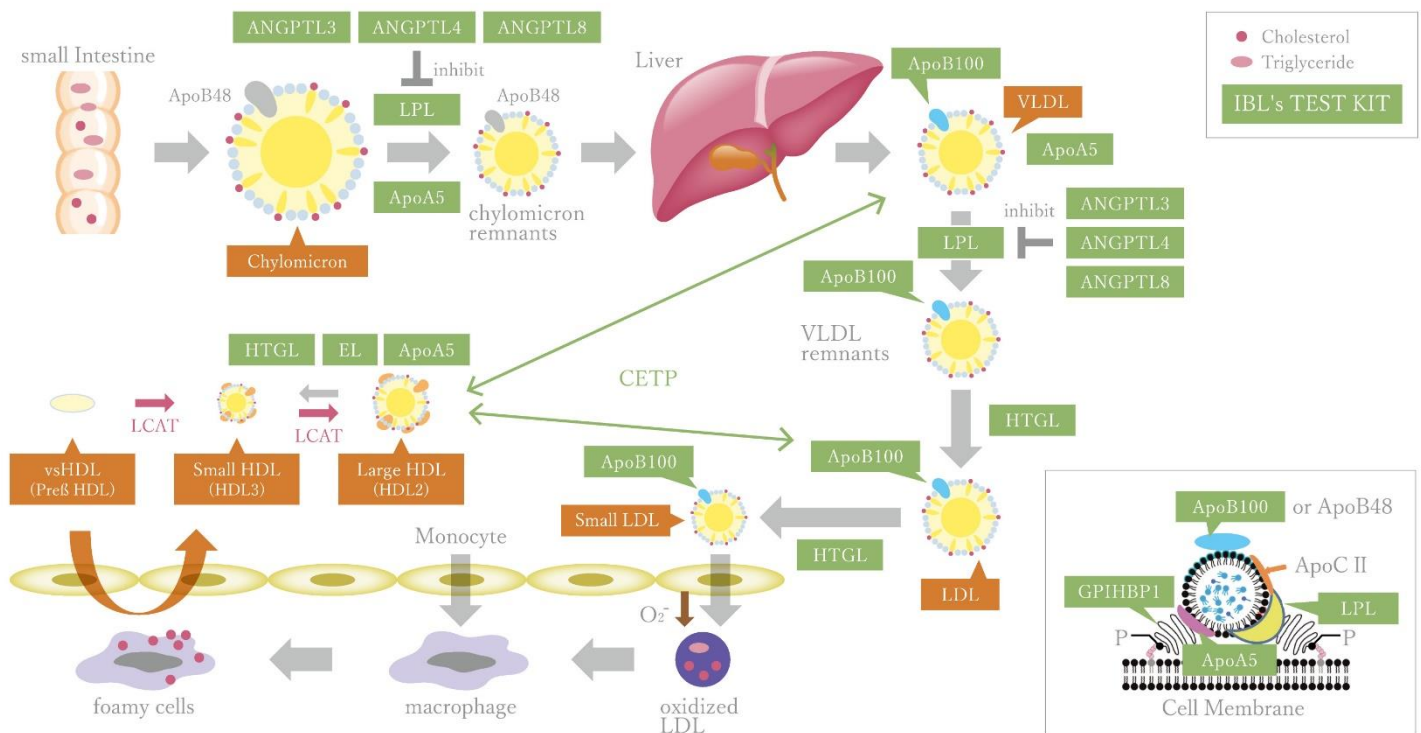
Data provided from the poster presented at The 50th Annual Scientific Meeting of the Japan Atherosclerosis Society

It has been already know that type I hyperlipemia (hyperchylomicronemia) can be caused by GPIHBP1 gene mutation, however, the new insight regarding existence of GPIHBP1 autoantibody as a novel disease entity has been reported on the following paper published by [New England Journal of Medicine \(NEJM\)](#).

According to the new insight, GPIHBP1 antibody against to GPIHBP1 protein **interferes the binding between GPIHBP1 and LPL, then it blocks the transport of LPL by GPIHBP1**. At the end, severe hyperchylomicronemia is caused by the phenomenon as same as gene mutation.

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Useful for Research of Lipid related Diseases



Comprehensive Product Lineup

- | | |
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| #27181 h ApoB100 | #27750 h ANGPTL3 (h.s.) |
| #27263 h EL C-Term | #27749 h ANGPTL4 |
| #27182 h EL (FL) | #27795 h ANGPTL8 |
| #27180 h Serum HTGL | #27185 h LPL/HTGL (Activity)* |
| #27179 h GPIHBP1 | #27264 h LPL/HTGL (Activity) Control Plus* |
| New #27267 h GPIHBP1 Autoantibody | |

*The assays are not ELISA.

References

GPIHBP1 Autoantibody

- [Chylomicronemia from GPIHBP1 autoantibodies Kazuya Miyashita et al. J Lipid Res 2020 Sep 18; jlr.R120001116.](#)
- [Intermittent chylomicronemia caused by intermittent GPIHBP1 autoantibodies. Ashraf AP et al. J Clin Lipidol. Mar-Apr 2020;14\(2\):197-200.](#)
- [GPIHBP1 autoantibody syndrome during interferon \$\beta\$ 1a treatment. Eguchi J et al. J Clin Lipidol. Jan-Feb 2019;13\(1\):62-69.](#)
- [An ELISA for quantifying GPIHBP1 autoantibodies and making a diagnosis of the GPIHBP1 autoantibody syndrome. Miyashita K et al. Clin Chim Acta. 2018 Dec;487:174-178.](#)
- [GPIHBP1 autoantibodies in a patient with unexplained chylomicronemia. Hu X et al. J Clin Lipidol. Jul-Aug 2017;11\(4\):964-971](#)
- [Autoantibodies against GPIHBP1 as a Cause of Hypertriglyceridemia. Beigneux AP et al. N Engl J Med. 2017 Apr 27;376\(17\):1647-1658.](#)

GPIHBP1 (mass)

- [Chylomicronemia from GPIHBP1 autoantibodies Kazuya Miyashita et al. J Lipid Res 2020 Sep 18; jlr.R120001116.](#)
- [Detailed analysis of lipolytic enzymes in a Japanese woman of familial lipoprotein lipase deficiency - Effects of pemafibrate treatment. Minamizuka T et al. Clin Chim Acta. 2020 Jul 17;510:216-219.](#)
- [Association between skeletal muscle mass and serum concentrations of lipoprotein lipase, GPIHBP1, and hepatic triglyceride lipase in young Japanese men. Matsumoto R et al. Lipids Health Dis. 2019 Apr 4;18\(1\):84.](#)
- [GPIHBP1 autoantibodies in a patient with unexplained chylomicronemia. Hu X et al. J Clin Lipidol. Jul-Aug 2017;11\(4\):964-971.](#)
- [An enzyme-linked immunosorbent assay for measuring GPIHBP1 levels in human plasma or serum. Miyashita K et al. J Clin Lipidol. 2018 Jan - Feb;12\(1\):203-210.e1.](#)
- [ApoA5 ApoB100 ANGPTL2 ANGPTL3 \(h.s.\) ANGPTL4 ANGPTL8 EL \(FL\) EL C-Term GPIHBP1 GPIHBP1 Autoantibody Serum HTGL LPL/HTGL Activity](#)