

GPI-PLD (D-10): sc-365096



The Power to Question

BACKGROUND

Phosphatidylinositol-glycan-specific phospholipase D (GPI-PLD) is a high-density lipoprotein-associated protein found on chromosome 6p22.3 that specifically hydrolyzes the inositol phosphate linkage in proteins anchored by phosphatidylinositol-glycans (PI-Gs). GPI-PLD is found in serum, liver, cerebrospinal fluid and in milk. The majority of plasma GPI-PLD appears to be specifically associated with a small, discrete and minor fraction of lipoproteins containing apoA-I and apoA-IV. Serum GPI-PLD activity is reduced over 75% in systemic inflammatory response syndrome and the downregulation of GPI-PLD could play an important role in the control of proinflammatory responses.

REFERENCES

- Scallion, B.J., et al. 1991. Primary structure and functional activity of a phosphatidylinositol-glycan-specific phospholipase D. *Science* 252: 446-448.
- Stieger, S., et al. 1991. Enzymatic properties of phosphatidylinositol-glycan-specific phospholipase C from rat liver and phosphatidylinositol-glycan-specific phospholipase D from rat serum. *Eur. J. Biochem.* 197: 67-73.
- Hoener, M.C. and Brodbeck, U. 1992. Phosphatidylinositol-glycan-specific phospholipase D is an amphiphilic glycoprotein that in serum is associated with high-density lipoproteins. *Eur. J. Biochem.* 206: 747-777.
- Scallion, B.J., et al. 1992. A novel strategy for secreting proteins: use of phosphatidylinositol-glycan-specific phospholipase D to release chimeric phosphatidylinositol-glycan anchored proteins. *Biotechnology* 10: 550-556.
- Deeg, M.A., et al. 2001. Increased expression of GPI-specific phospholipase D in mouse models of type 1 diabetes. *Am. J. Physiol. Endocrinol. Metab.* 281: 147-154.
- Deeg, M.A., et al. 2001. GPI-specific phospholipase D associates with an apoA^I- and apoA^{IV}-containing complex. *J. Lipid Res.* 42: 442-451.

CHROMOSOMAL LOCATION

Genetic locus: GPLD1 (human) mapping to 6p22.3; Gpld1 (mouse) mapping to 13 A3.1.

SOURCE

GPI-PLD (D-10) is a mouse monoclonal antibody raised against amino acids 1-300 of GPI-PLD of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GPI-PLD (D-10) is available conjugated to agarose (sc-365096 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365096 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365096 PE), fluorescein (sc-365096 FITC), Alexa Fluor® 488 (sc-365096 AF488), Alexa Fluor® 546 (sc-365096 AF546), Alexa Fluor® 594 (sc-365096 AF594) or Alexa Fluor® 647 (sc-365096 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365096 AF680) or Alexa Fluor® 790 (sc-365096 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GPI-PLD (D-10) is recommended for detection of GPI-PLD of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 GPI-PLD siRNA (h): sc-43811, GPI-PLD siRNA (m): sc-41625, GPI-PLD shRNA Plasmid (h): sc-43811-SH, GPI-PLD shRNA Plasmid (m): sc-41625-SH, GPI-PLD shRNA (h) Lentiviral Particles: sc-43811-V and GPI-PLD shRNA (m) Lentiviral Particles: sc-41625-V.

Molecular Weight of GPI-PLD: 110 kDa.

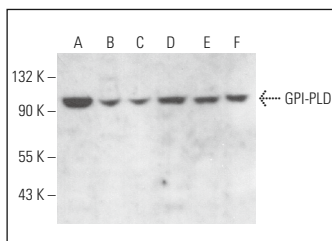
Positive Controls: GPI-PLD (h): 293T Lysate: sc-159553, c4 whole cell lysate: sc-364186 or Caki-1 cell lysate: sc-2224.

RECOMMENDED SUPPORT REAGENTS

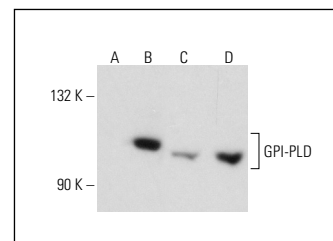
To ensure optimal results, the following support reagents are recommended:

- 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.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GPI-PLD (D-10): sc-365096. Western blot analysis of GPI-PLD expression in Daudi (A), c4 (B), Neuro-2A (C), HL-60 (D), Hep G2 (E) and KNRK (F) whole cell lysates.



GPI-PLD (D-10): sc-365096. Western blot analysis of GPI-PLD expression in non-transfected 293T: sc-110760 (A), human GPI-PLD transfected 293T: sc-159553 (B) and Caki-1 (C) whole cell lysates and human hair protein extract (D).

STORAGE

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

RESEARCH USE

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