abcam

Product datasheet

Anti-INPPL1/SHIP-2 antibody [EPR10955] ab166916

KO 評価済 リコンビナント RabMAb

画像数 6

製品の概要

製品名	Anti-INPPL1/SHIP-2 antibody [EPR10955]
製品の詳細	Rabbit monoclonal [EPR10955] to INPPL1/SHIP-2
由来種	Rabbit
アプリケーション	**適用あり:** WB, IHC-P, ICC/IF **適用なし:** Flow Cyt or IP
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide within Human INPPL1/SHIP-2 aa 950-1050. The exact sequence is proprietary.
ポジティブ・コントロール	K562, HeLa whole cell lysate (**ab150035**); Human heart tissue; Human kidney tissue; HeLa cells
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
精製度	Tissue culture supernatant
ポリ/モノ	モノクローナル
クローン名	EPR10955
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab166916の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000 - 1/10000. Predicted molecular weight: 139 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.

追加情報 Is unsuitable for Flow Cyt or IP.

ターゲット情報

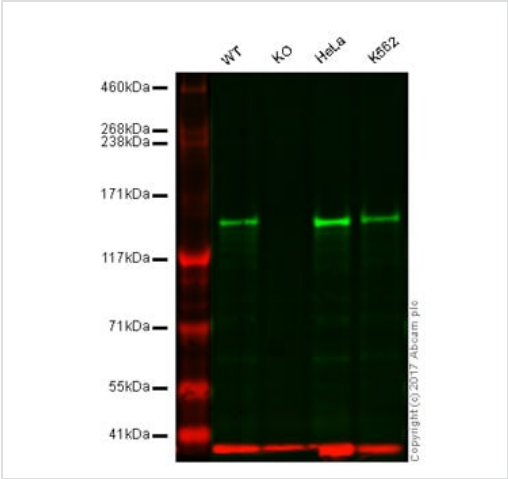
機能 Phosphatidylinositol (PtdIns) phosphatase that specifically hydrolyzes the 5-phosphate of phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3) to produce PtdIns(3,4)P2, thereby negatively regulating the PI3K (phosphoinositide 3-kinase) pathways. Plays a central role in regulation of PI3K-dependent insulin signaling, although the precise molecular mechanisms and signaling pathways remain unclear. While overexpression reduces both insulin-stimulated MAP kinase and Akt activation, its absence does not affect insulin signaling or GLUT4 trafficking. Confers resistance to dietary obesity. May act by regulating AKT2, but not AKT1, phosphorylation at the plasma membrane. Part of a signaling pathway that regulates actin cytoskeleton remodeling. Required for the maintenance and dynamic remodeling of actin structures as well as in endocytosis, having a major impact on ligand-induced EGFR internalization and degradation. Participates in regulation of cortical and submembraneous actin by hydrolyzing PtdIns(3,4,5)P3 thereby regulating membrane ruffling. Regulates cell adhesion and cell spreading. Required for HGF-mediated lamellipodium formation, cell scattering and spreading. Acts as a negative regulator of EPHA2 receptor endocytosis by inhibiting via PI3K-dependent Rac1 activation. Acts as a regulator of neuritogenesis by regulating PtdIns(3,4,5)P3 level and is required to form an initial protrusive pattern, and later, maintain proper neurite outgrowth. Acts as a negative regulator of the FC-gamma-RIIA receptor (FCGR2A). Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems. Involved in EGF signaling pathway. Upon stimulation by EGF, it is recruited by EGFR and dephosphorylates PtdIns(3,4,5)P3. Plays a negative role in regulating the PI3K-PKB pathway, possibly by inhibiting PKB activity. Down-regulates Fc-gamma-R-mediated phagocytosis in macrophages independently of INPP5D/SHIP1. In macrophages, down-regulates NF-kappa-B-dependent gene transcription by regulating macrophage colony-stimulating factor (M-CSF)-induced signaling. May also hydrolyze PtdIns(1,3,4,5)P4, and could thus affect the levels of the higher inositol polyphosphates like InsP6.

組織特異性 Widely expressed, most prominently in skeletal muscle, heart and brain. Present in platelets. Expressed in transformed myeloid cells and in primary macrophages, but not in peripheral blood monocytes.

関連疾患 Defects in INPPL1 may be a cause of susceptibility to type 2 diabetes mellitus non-insulin dependent (NIDDM) [MIM:125853].
Note=Genetic variations in INPPL1 may be a cause of susceptibility to metabolic syndrome.

	Metabolic syndrome is characterized by diabetes, insulin resistance, hypertension, and hypertriglyceridemia is absent.
配列類似性	Belongs to the inositol 1,4,5-trisphosphate 5-phosphatase family. Contains 1 SAM (sterile alpha motif) domain. Contains 1 SH2 domain.
ドメイン	The SH2 domain interacts with tyrosine phosphorylated forms of proteins such as SHC1 or FCGR2A. It also mediates the interaction with p130Cas/BCAR1. The NPXY sequence motif found in many tyrosine-phosphorylated proteins is required for the specific binding of the PID domain.
翻訳後修飾	Tyrosine phosphorylated by the members of the SRC family after exposure to a diverse array of extracellular stimuli such as insulin, growth factors such as EGF or PDGF, chemokines, integrin ligands and hypertonic and oxidative stress. May be phosphorylated upon IgG receptor FCGR2B-binding. Phosphorylated at Tyr-986 following cell attachment and spreading. Phosphorylated at Tyr-1162 following EGF signaling pathway stimulation. Phosphorylated at Thr-958 in response to PDGF.
細胞内局在	Cytoplasm > cytosol. Cytoplasm > cytoskeleton > actin patch. Membrane. Translocates to membrane ruffles when activated, translocation is probably due to different mechanisms depending on the stimulus and cell type. Partly translocated via its SH2 domain which mediates interaction with tyrosine phosphorylated receptors such as the FC-gamma-RIIB receptor (FCGR2B). Tyrosine phosphorylation may also participate in membrane localization. Insulin specifically stimulates its redistribution from the cytosol to the plasma membrane. Recruited to the membrane following M-CSF stimulation.

画像

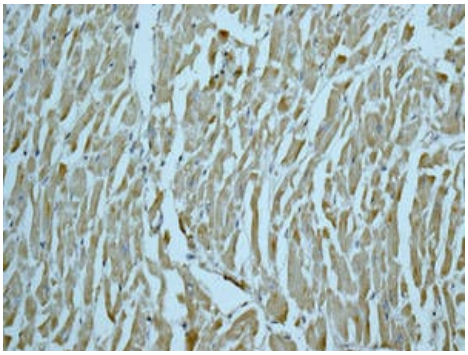


Western blot - Anti-INPPL1/SHIP-2 antibody [EPR10955] (ab166916)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: INPPL1/SHIP-2 knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)
Lane 4: K562 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab166916 observed at 139 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

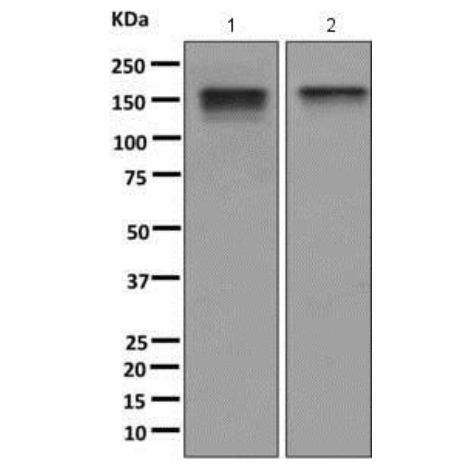
ab166916 was shown to specifically react with INPPL1/SHIP-2 in wild-type HAP1 cells. No band was observed when INPPL1/SHIP-2 knockout samples were examined. Wild-type and INPPL1/SHIP-2 knockout samples were subjected to SDS-PAGE. Ab166916 and **ab9484** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-INPPL1/SHIP-2 antibody [EPR10955] (ab166916)

Immunohistochemical analysis of paraffin-embedded Human heart tissue labeling INPPL1/SHIP-2 with ab166916 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



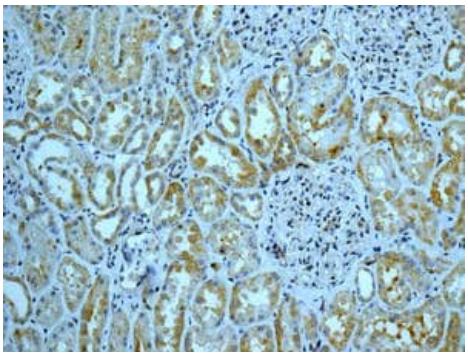
Western blot - Anti-INPPL1/SHIP-2 antibody [EPR10955] (ab166916)

All lanes : Anti-INPPL1/SHIP-2 antibody [EPR10955] (ab166916) at 1/1000 dilution

Lane 1 : K562 cell lysate
Lane 2 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

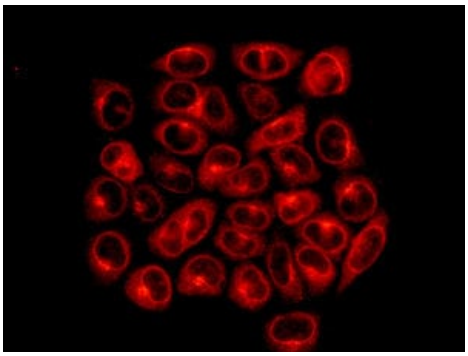
Predicted band size: 139 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-INPPL1/SHIP-2 antibody [EPR10955] (ab166916)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling INPPL1/SHIP-2 with ab166916 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-INPPL1/SHIP-2 antibody [EPR10955] (ab166916)

Immunofluorescent analysis of HeLa cells labeling INPPL1/SHIP-2 with ab166916 at 1/100 dilution.

Anti-INPPL1/SHIP-2 antibody [EPR10955] (ab166916)

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