

Anti-ENPP1/PC1 antibody [EPR22262-22] ab223268

リコンビナント **RabMAb**

2 References [画像数 8](#)

製品の概要

製品名	Anti-ENPP1/PC1 antibody [EPR22262-22]
製品の詳細	Rabbit monoclonal [EPR22262-22] to ENPP1/PC1
由来種	Rabbit
アプリケーション	適用あり: Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
種交差性	交差種: Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: Human kidney tissue lysate; MDA-MB-231, HepG2 and Huh7 whole cell lysate. IHC-P: Human pancreas and liver tissue. ICC/IF: HepG2 and MDA-MB-231 cells. Flow: HepG2 cells. IP: MDA-MB-231 whole cell lysate.
特記事項	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR22262-22

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ab223268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確認ください。

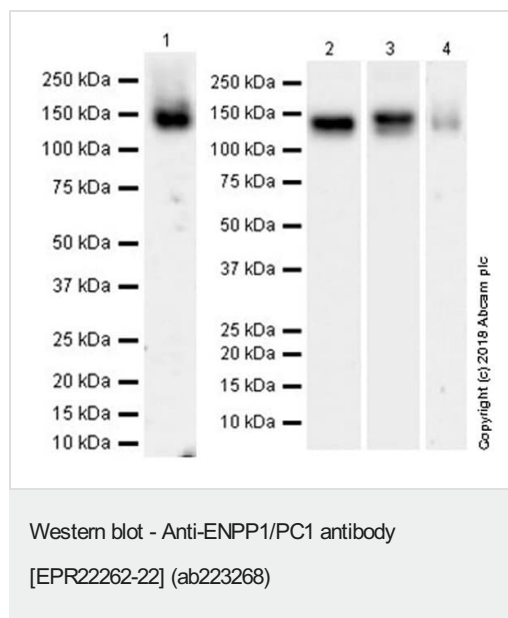
アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/50.
WB		1/1000. Detects a band of approximately 130 kDa (predicted molecular weight: 105 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).
ICC/IF		1/100.
IP		1/30.

ターゲット情報

機能	Involved primarily in ATP hydrolysis at the plasma membrane. Plays a role in regulating pyrophosphate levels, and functions in bone mineralization and soft tissue calcification. In vitro, has a broad specificity, hydrolyzing other nucleoside 5' triphosphates such as GTP, CTP, TTP and UTP to their corresponding monophosphates with release of pyrophosphate and diadenosine polyphosphates, and also 3',5'-cAMP to AMP. May also be involved in the regulation of the availability of nucleotide sugars in the endoplasmic reticulum and Golgi, and the regulation of purinergic signaling. Appears to modulate insulin sensitivity.
組織特異性	Expressed in plasma cells and also in a number of non-lymphoid tissues, including the distal convoluted tubule of the kidney, chondrocytes and epididymis.
関連疾患	<p>Defects in ENPP1 are a cause of increased susceptibility for ossification of the posterior longitudinal ligament of the spine (OPLL) [MIM:602475]. OPLL is a common form of human myelopathy with a prevalence of as much as 4% in a variety of ethnic groups.</p> <p>Defects in ENPP1 are the cause of arterial calcification of infancy, generalized, type 1 (GACI1) [MIM:208000]. A severe autosomal recessive disorder characterized by calcification of the internal elastic lamina of muscular arteries and stenosis due to myointimal proliferation. The disorder is often fatal within the first 6 months of life because of myocardial ischemia resulting in refractory heart failure.</p> <p>Defects in ENPP1 are associated with obesity, glucose intolerance, and type II diabetes non-insulin dependent (NIDDM) [MIM:125853].</p> <p>Defects in ENPP1 are the cause of rickets hypophosphatemic autosomal recessive type 2 (ARHR2) [MIM:613312]. ARHR2 is a hereditary form of hypophosphatemic rickets, a disorder of proximal renal tubule function that causes phosphate loss, hypophosphatemia and skeletal deformities, including rickets and osteomalacia unresponsive to vitamin D. Symptoms are bone pain, fractures and growth abnormalities.</p>

配列類似性	Belongs to the nucleotide pyrophosphatase/phosphodiesterase family. Contains 2 SMB (somatomedin-B) domains.
ドメイン	The di-leucine motif is required for basolateral targeting in epithelial cells, and for targeting to matrix vesicles derived from mineralizing cells.
翻訳後修飾	Autophosphorylated as part of the catalytic cycle of phosphodiesterase/pyrophosphatase activity. N-glycosylated. It has been suggested that the active SMB domain may be permitted considerable disulfide bond heterogeneity or variability, thus two alternate disulfide patterns based on 3D structures are described with 1 disulfide bond conserved in both.
細胞内局在	Membrane. Basolateral cell membrane. Targeted to the basolateral membrane in polarized epithelial cells and in hepatocytes, and to matrix vesicles in osteoblasts. In bile duct cells and cancer cells, located to the apical cytoplasmic side.

画像



All lanes : Anti-ENPP1/PC1 antibody [EPR22262-22] (ab223268)
at 1/1000 dilution

Lane 1 : Human kidney tissue lysate

Lane 2 : MDA-MB-231 (human breast adenocarcinoma cell line)
whole cell lysate

Lane 3 : HepG2 (human liver hepatocellular carcinoma cell line)
whole cell lysate

Lane 4 : Huh7 (human hepatocellular carcinoma epithelial cell)
whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

Lane 1 : VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at
1/1000 dilution

Lanes 2-4 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at
1/100000 dilution

Predicted band size: 105 kDa

Observed band size: 130 kDa

Blocking and dilution buffer: 5% NFDM/TBST

Exposure time:

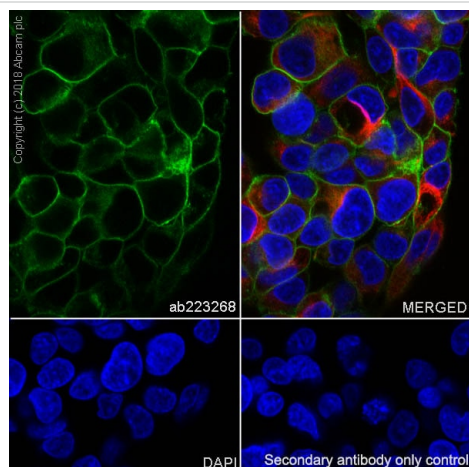
Lane 1:3 minutes;

Lane 2:70 seconds;

Lane 3:15 seconds;

Lane 4:3 minutes

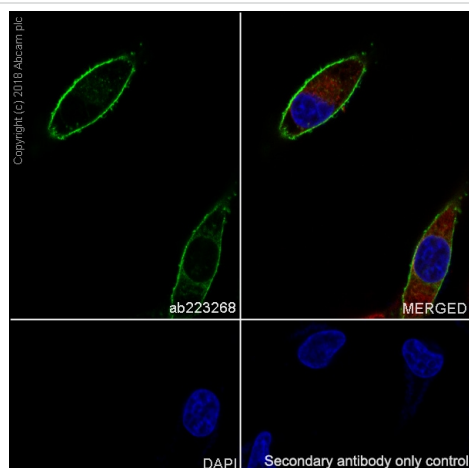
The molecular weight observed is consistent with what has been described in the literature (PMID: 19577557).



Immunocytochemistry/ Immunofluorescence - Anti-ENPP1/PC1 antibody [EPR22262-22] (ab223268)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling ENPP1/PC1 (green) with ab223268 at 1/100 dilution, followed by Alexa Fluor® 488 Goat anti-Rabbit secondary antibody (**ab150077**) at 1/1000 dilution. Confocal image showing membranous staining in HepG2 cells. Tubulin was detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution (red). The nuclear counterstain was DAPI (Blue).

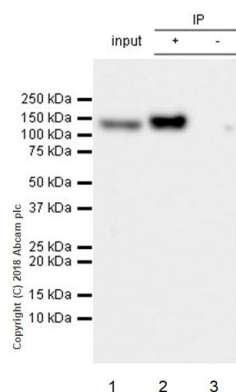
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Alexa Fluor® 488 Goat anti-Rabbit (**ab150077**) at 1/200 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-ENPP1/PC1 antibody [EPR22262-22] (ab223268)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MDA-MB-231 (human breast adenocarcinoma cell line) cells labeling ENPP1/PC1 (green) with ab223268 at 1/100 dilution, followed by Alexa Fluor® 488 Goat anti-Rabbit secondary antibody (**ab150077**) at 1/1000 dilution. Confocal image showing membranous staining in MDA-MB-231 cells. Tubulin was detected using Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Alexa Fluor® 488 Goat anti-Rabbit (**ab150077**) at 1/200 dilution.



Immunoprecipitation - Anti-ENPP1/PC1 antibody
[EPR22262-22] (ab223268)

ENPP1/PC1 was immunoprecipitated from 0.35 mg of MDA-MB-231 (human breast adenocarcinoma cell line) whole cell lysate using ab223268 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab223268 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used for detection at 1/5000 dilution.

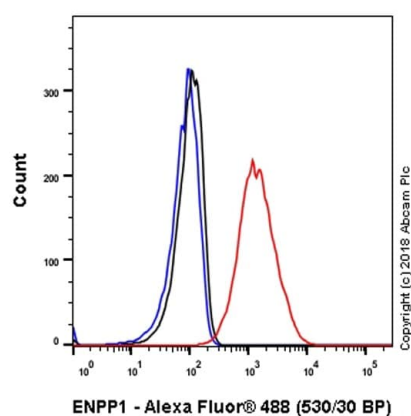
Lane 1: MDA-MB-231 whole cell lysate 10µg (input)

Lane 2: ab223268 IP in MDA-MB-231 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab223268 in MDA-MB-231 whole cell lysate (-).

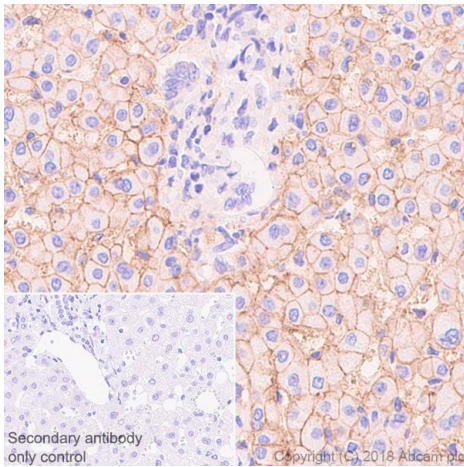
Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 30 seconds.



Flow Cytometry (Intracellular) - Anti-ENPP1/PC1
antibody [EPR22262-22] (ab223268)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling ENPP1/PC1 with ab223268 (red) compared with a Rabbit monoclonal IgG isotype control ([ab172730](#)) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody.



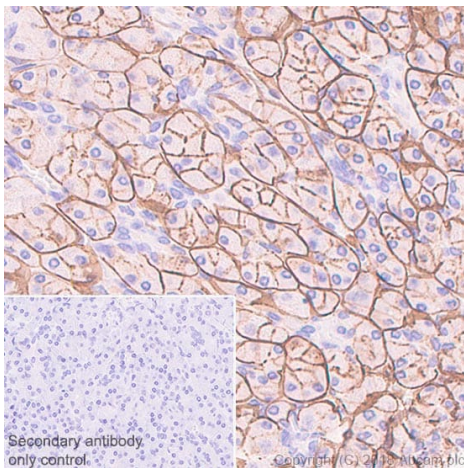
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ENPP1/PC1 antibody [EPR22262-22] (ab223268)

Immunohistochemical analysis of paraffin-embedded human liver tissue stained for ENPP1/PC1 using ab223268 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Membranous staining on human liver (PMID: 25539584; PMID: 9344668; PMID: 23861746) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ENPP1/PC1 antibody [EPR22262-22] (ab223268)

Immunohistochemical analysis of paraffin-embedded human pancreas tissue stained for ENPP1/PC1 using ab223268 at 1/500 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Membranous staining on human pancreas (PMID: 9344668; PMID: 23861746) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

Why choose a recombinant antibody?



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Anti-ENPP1/PC1 antibody [EPR22262-22]
(ab223268)

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