

Product datasheet

Anti-15-PGDH antibody [EPR14332] ab187160

Recombinant **RabMAb**

★★★★☆ **2 Abreviews** **2 References** **8 Images**

Overview

Product name	Anti-15-PGDH antibody [EPR14332]
Description	Rabbit monoclonal [EPR14332] to 15-PGDH
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	Cco-2, SW480, LoVo and Human placenta lysates; Human stomach and Human colon tissues; SW480 and Caco-2 cells.
General notes	<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>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14332
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab187160 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/90. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/250.
WB	★☆☆☆☆ (1)	1/1000 - 1/10000. Detects a band of approximately 25,29 kDa (predicted molecular weight: 29 kDa).
IHC-P	★★★★★ (1)	1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function

Prostaglandin inactivation. Contributes to the regulation of events that are under the control of prostaglandin levels. Catalyzes the NAD-dependent dehydrogenation of lipoxin A4 to form 15-oxo-lipoxin A4. Inhibits in vivo proliferation of colon cancer cells.

Tissue specificity

Detected in colon epithelium (at protein level).

Involvement in disease

Defects in HPGD are the cause of primary hypertrophic osteoarthropathy autosomal recessive (PHOAR) [MIM:259100]; also known as pachydermoperiostosis autosomal recessive. Primary hypertrophic osteoarthropathy is characterized by digital clubbing, osterarthropathy, variable features of pachydermia, delayed closure of the fontanels, and congenital heart disease.

Defects in HPGD are the cause of craniosteoarthropathy (COA) [MIM:259100]. Clinical features include infantile onset of swelling of the joints, digital clubbing, hyperhidrosis, delayed closure of the fontanels, periostosis, and variable patent ductus arteriosus. Pachydermia is not a prominent feature.

Defects in HPGD are a cause of isolated congenital nail clubbing (ICNC) [MIM:119900]; also called clubbing of digits or hereditary acropachy. ICNC is a rare genodermatosis characterized by enlargement of the nail plate and terminal segments of the fingers and toes, resulting from proliferation of the connective tissues between the nail matrix and the distal phalanx. It is usually symmetrical and bilateral (in some cases unilateral). In nail clubbing usually the distal end of the nail matrix is relatively high compared to the proximal end, while the nail plate is complete but its dimensions and diameter more or less vary in comparison to normal. There may be different fingers and toes involved to varying degrees. Some fingers or toes are spared, but the thumbs are almost always involved.

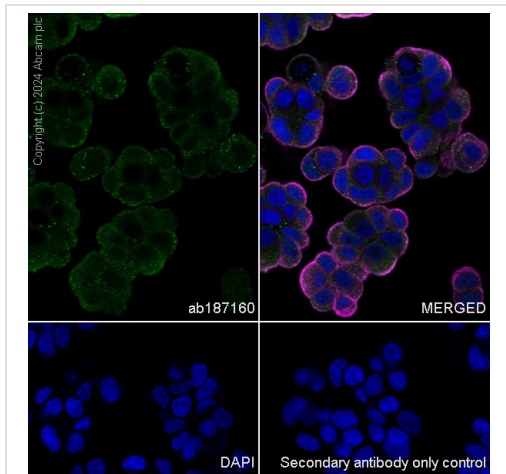
Sequence similarities

Belongs to the short-chain dehydrogenases/reductases (SDR) family.

Cellular localization

Cytoplasm.

Images



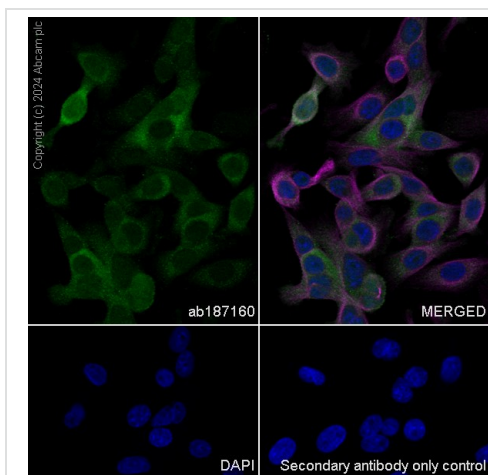
Immunocytochemistry/ Immunofluorescence - Anti-15-PGDH antibody [EPR14332] (ab187160)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF-7 (human breast adenocarcinoma epithelial cell) labeling 15-PGDH with ab187160 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) at 1/200 was used as a counterstain (red).

The nuclear counterstain is DAPI (blue).

Confocal image showing mainly cytoplasmic staining in MCF-7 cell line.



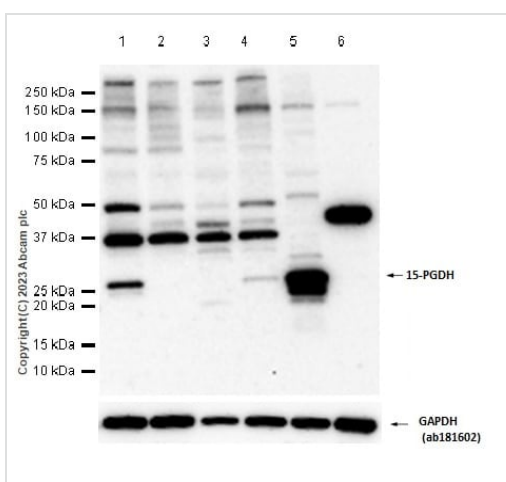
Immunocytochemistry/ Immunofluorescence - Anti-15-PGDH antibody [EPR14332] (ab187160)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SW480 (Human colorectal adenocarcinoma epithelial cell) labeling 15-PGDH with ab187160 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) at 1/200 was used as a counterstain (red).

The nuclear counterstain is DAPI (blue).

Confocal image showing mainly cytoplasmic staining in SW480 cell line.



Western blot - Anti-15-PGDH antibody [EPR14332] (ab187160)

All lanes : Anti-15-PGDH antibody [EPR14332] (ab187160) at 1/1000 dilution

Lane 1 : HCT-15 (human colorectal carcinoma epithelial cell) whole cell lysate

Lane 2 : HCT116 (human colorectal carcinoma epithelial cell) whole cell lysate

Lane 3 : PANC-1 (human pancreatic epithelioid carcinoma epithelial cell) whole cell lysate

Lane 4 : HEK-293 (human embryonic kidney epithelial cell) whole cell lysate

Lane 5 : Human colon tissue lysate

Lane 6 : Human heart tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

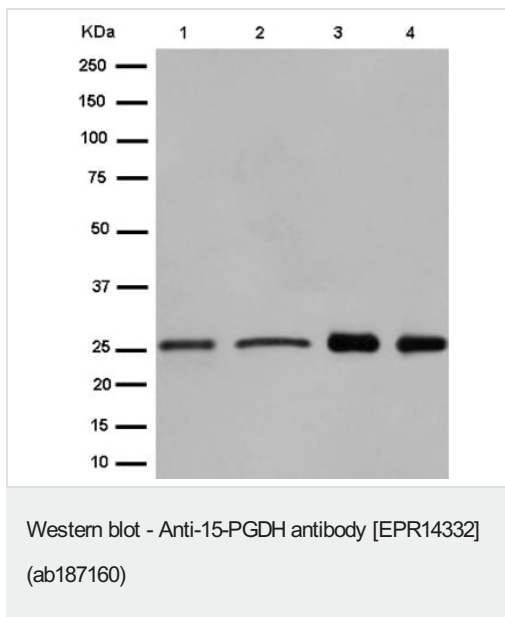
Predicted band size: 29 kDa

Observed band size: 29 kDa

Exposure time: 80 seconds

Blocking and Diluting Buffer: 5% NFDM/TBST

The expression profile observed in HCT-116, PANC-1 and human heart are consistent with the literatures (PMID: 15542609, PMID: 30250298). Negative control: HCT-116, PANC-1 and human heart (PMID: 15542609, PMID: 30250298).



All lanes : Anti-15-PGDH antibody [EPR14332] (ab187160) at 1/10000 dilution

Lane 1 : caco-2 cell lysate

Lane 2 : SW480 cell lysate

Lane 3 : LoVo cell lysate

Lane 4 : Human placenta lysate

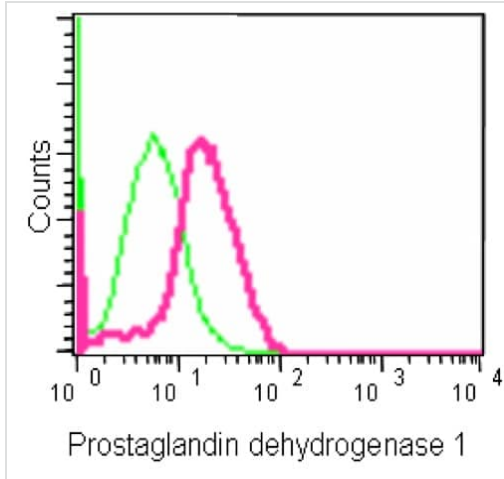
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

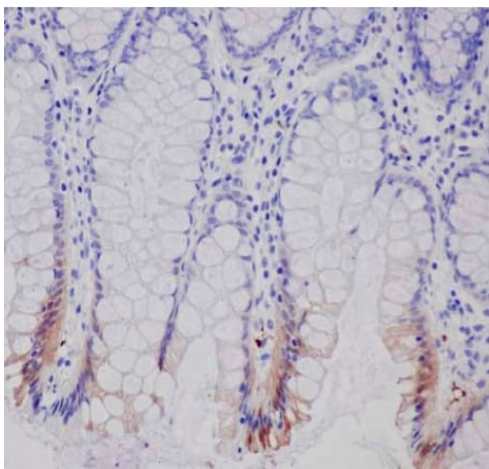
Predicted band size: 29 kDa

Additional bands at: 25 kDa. We are unsure as to the identity of these extra bands.



Flow Cytometry (Intracellular) - Anti-15-PGDH antibody [EPR14332] (ab187160)

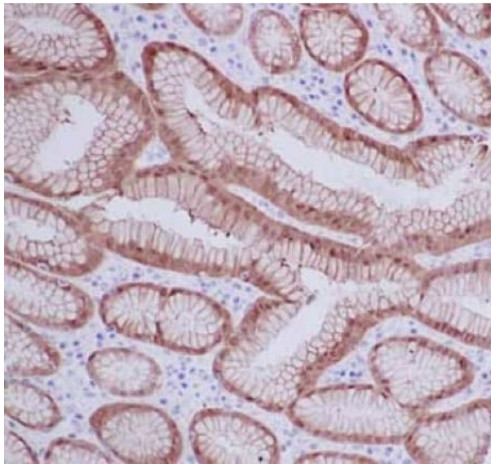
Intracellular flow cytometrical analysis of Caco-2 cells labeling 15-PGDH with ab187160 at 1/90 compared to a Isotype control. FITC-conjugated goat-anti-rabbit secondary antibody at 1/150 used for the analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-15-PGDH antibody [EPR14332] (ab187160)

Immunohistochemical analysis of paraffin embedded Human colon tissue labeling 15-PGDH with ab187160 at 1/4000 with a prediluted HRP Polymer for Rabbit IgG as secondary antibody.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-15-PGDH antibody [EPR14332] (ab187160)

Immunohistochemical analysis of paraffin embedded Human stomach tissue labeling 15-PGDH with ab187160 at 1/4000 with a prediluted HRP Polymer for Rabbit IgG as secondary antibody.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-15-PGDH antibody [EPR14332] (ab187160)

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