abcam

ab314640

Anti-PLOD2/LH2 antibody [EPR25160-22]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR25160-22
Purification technique	Affinity purification Protein A
Concentration	0.514 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

Dot

Tested

Species	Recombinant fragment - Human
Dilution info	1/1000
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	1/20000
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human, Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information PLOD2

Function	Forms hydroxylysine residues in -Xaa-Lys-Gly- sequences in collagens. These hydroxylysines serve as sites of attachment for carbohydrate units and are essential for the stability of the intermolecular collagen cross-links.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

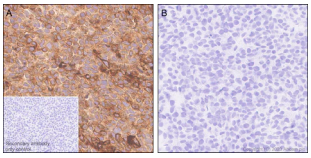
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

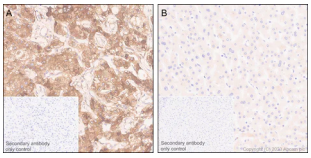
Full details and terms and conditions can be found here:
Terms & Conditions.

10 product images



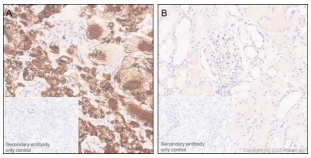
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Immunohistochemical analysis of paraffin-embedded (A) Wild-type HEK293T (human embryonic kidney epithelial cell) cell pellet (B) PLOD2 knockout HEK293T cell pellet tissue labeling PLOD2/LH2 with ab314640 at 1/2000 (0.257 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on (A) Wild-type HEK293T cell pellet, no staining on (B) PLOD2 knockout KEK293T cell pellet.The section was incubated with ab314640 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



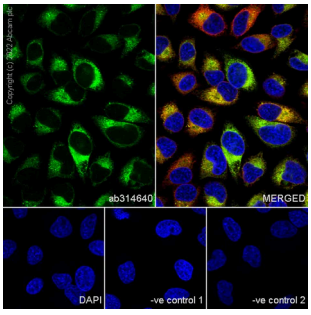
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma and adjacent tissue tissue labeling PLOD2/LH2 with ab314640 at 1/2000 (0.257 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on (A) human hepatocellular carcinoma tissue and (B) very weak staining on the adjacent tissue (PMID: 33014843). The section was incubated with ab314640 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



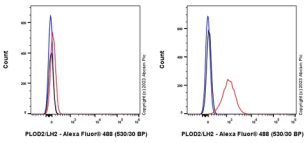
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Immunohistochemical analysis of paraffin-embedded human clear cell renal cell carcinoma and adjacent tissue tissue labeling PLOD2/LH2 with ab314640 at 1/2000 (0.257 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Cytoplasmic staining on (A) human clear cell renal cell carcinoma tissue and (B) very weak staining on the adjacent tissue (PMID:33287763). The section was incubated with ab314640 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument .Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



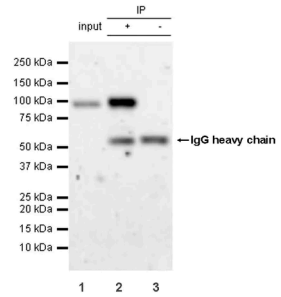
Immunocytochemistry/ Immunofluorescence - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling PLOD2/LH2 with ab314640 at 1/50 (10.28 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1010 (2ug/ml) dilution (Green). Confocal image showing cytoplasmic staining colocalized with endoplasmic reticulum marker in Hela cell line. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Anti-KDEL mouse monoclonal antibody was used to counterstain at 1/100 (1 ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1010 (2ug/ml) dilution.



Flow Cytometry (Intracellular) - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized PLOD2 KO HEK293T (human PLOD2 knockout embryonic kidney epithelial cell, Left) / Parental HEK293T (Right) cells labelling PLOD2/LH2 with ab314640 at 1/20000 dilution (0.0025 ug, Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

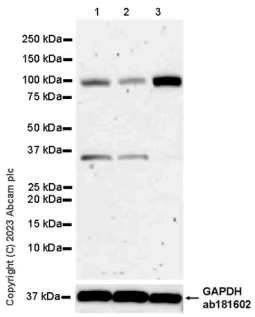
PLOD2/LH2 was immunoprecipitated from 0.35 mg HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate with ab314640 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab314640 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution. Lane 1: HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate Lane 2: ab314640 IP in HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab314640 in HeLa whole cell lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640) at 1/30 dilution

All lanes:
HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 180s



Western blot - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Blocking and diluting buffer and concentration: 5% NFDM/TBST The identity of the band around 37 kDa is unknown. In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.
All lanes:
Western blot - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640) at 1/1000 dilution

Lane 1:
Human testis tissue lysate at 20 µg

Lane 2:
Human colon cancer tissue lysate at 20 µg

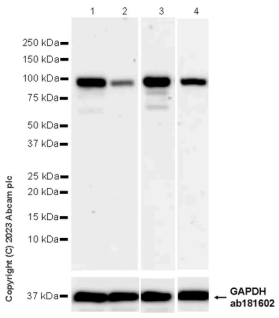
Lane 3:
Human liver cancer tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Observed band size: 95 kDa

Exposure time: 81s



Western blot - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Blocking and diluting buffer and concentration: 5% NFDM/TBST In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution. Exposure time: Lane1-3: 70 seconds; Lane 4: 180 seconds
All lanes:
Western blot - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640) at 1/1000 dilution

Lane 1:
HeLa (human cervical adenocarcinoma epithelial cell) transfected with scrambled siRNA control whole cell lysate at 20 µg

Lane 2:
Hela transfected with siRNA specifically targeting PLOD2 whole cell lysate at 20 µg

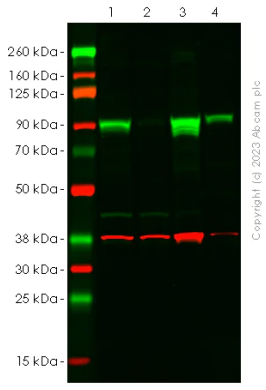
Lane 3:
DU 145 (human prostate carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
Caco-2 (human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

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

Observed band size: 95 kDa



Western blot - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Lysates at 20 µg per lane. Western blot: Anti-PLOD2/LH2 antibody (ab314640) staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody 6C5 (ab8245) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab314640 was shown to bind specifically to PLOD2/LH2. Target of interest was observed at 95 kDa in wild-type HEK293T cell lysates (lane 1) with no signal observed at this size in PLOD2 knockout cell line ab266279 (knockout cell lysate ab258591) (lane 2). To generate this image, samples were first run on an SDS-PAGE gel then transferred onto an immobilon-FL PVDF membrane. Membranes were blocked in a fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4 °C. Blots were washed in TBS-T, incubated with secondary antibodies Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution for 1 h at room temperature, washed again then imaged.
All lanes:
Western blot - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640) at 1/1000 dilution

Lane 1:
Wild-type HEK293T (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 2:
PLOD2 knockout HEK293T whole cell lysate at 20 µg

Lane 3:
HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:

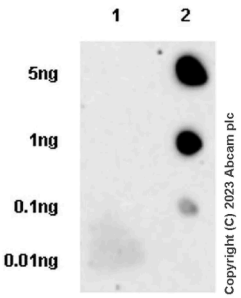
A431 (human epidermoid carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG H&L (800CW) and Goat Anti-Mouse IgG H&L (680RD) at 1/20000 dilution

Performed under reducing conditions.

Observed band size: 95 kDa



Dot Blot - Anti-PLOD2/LH2 antibody [EPR25160-22] (ab314640)

Dot blot analysis of PLOD2/LH2 using ab314640 at 1:1000 (0.503 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution. Exposure time: 180 seconds Blocking and diluting buffer and concentration: 5% NFDM/TBST

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.