abcam

Product datasheet

Anti-PHD1/prolyl hydroxylase antibody [EPR2746] ab113077

Recombinant RabMAb

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Overview

Product name	Anti-PHD1/prolyl hydroxylase antibody [EPR2746]
Description	Rabbit monoclonal [EPR2746] to PHD1/prolyl hydroxylase
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: A549, HeLa and MCF-7 cell lysates, Human fetal heart, Mouse brain, Mouse heart, Rat brain, Rat heart tissue lysates IHC-P: Mouse testis, Rat spleen, Human breast carcinoma and Human lung carcinoma tissue ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
General notes	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**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2746

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab113077 in the following tested applications.

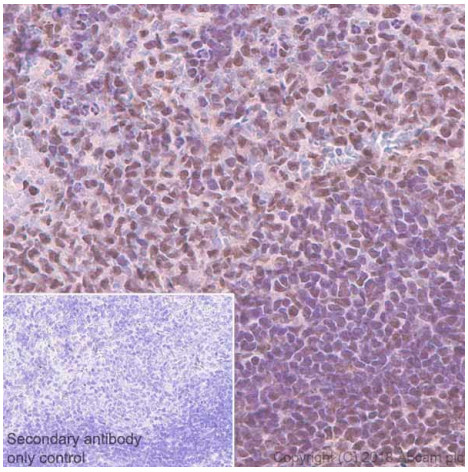
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/30.
WB	★★★★☆ **(2)**	1/1000 - 1/10000. Detects a band of approximately 44 kDa (predicted molecular weight: 44 kDa).
IHC-P		1/50. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use at 1/100 - 1/250.**
ICC/IF		1/50 - 1/100.

Target

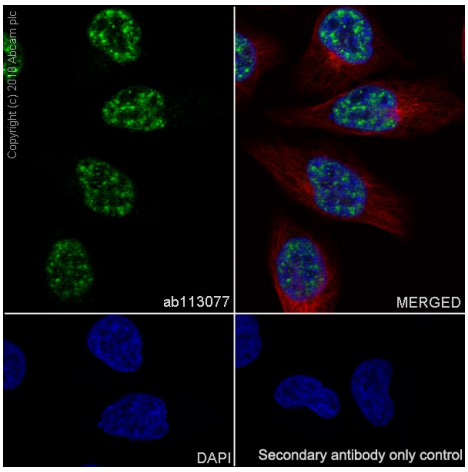
Function	Catalyzes the post-translational formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins. Hydroxylates HIF-1 alpha at 'Pro-402' and 'Pro-564', and HIF-2 alpha. Functions as a cellular oxygen sensor and, under normoxic conditions, targets HIF through the hydroxylation for proteasomal degradation via the von Hippel-Lindau ubiquitination complex. May play a role in cell growth regulation. Isoform p40 and isoform p43 exhibit the same level of activity.
Tissue specificity	Expressed abundantly in all tissues with highest expression in testis. Expressed in hormone responsive tissues, including normal and cancerous mammary, ovarian and prostate epithelium.
Sequence similarities	Contains 1 Fe2OG dioxygenase domain.
Cellular localization	Cytoplasm. Nucleus.

Images



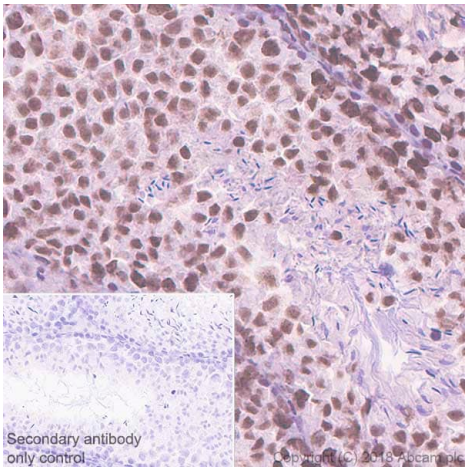
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat spleen tissue sections labeling PHD1/prolyl hydroxylase with Purified ab113077 at 1:50 dilution (5.14 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



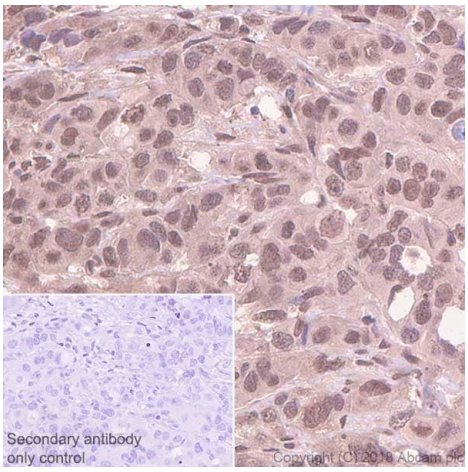
Immunocytochemistry/ Immunofluorescence - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (human cervix adenocarcinoma epithelial cell) cells labeling PHD1/prolyl hydroxylase with purified ab113077 at 1/50 dilution (5 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL) was used as the secondary antibody only control.



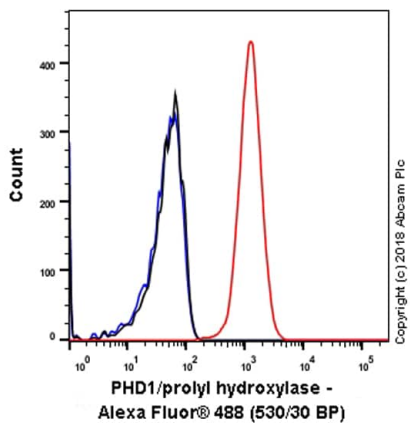
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse testis tissue sections labeling PHD1/prolyl hydroxylase with Purified ab113077 at 1:50 dilution (5.14 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



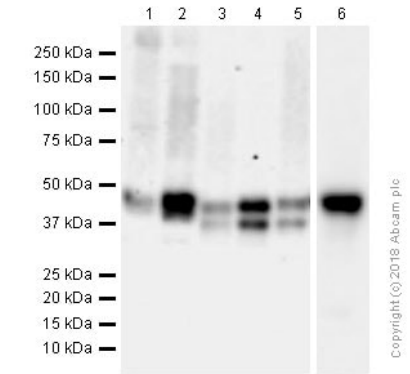
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast cancer tissue sections labeling PHD1/prolyl hydroxylase with Purified ab113077 at 1:50 dilution (5.14 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling PHD1/prolyl hydroxylase with Purified ab113077 at 1/30 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

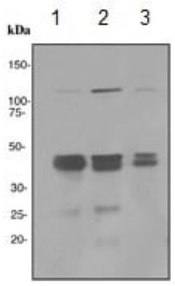
All lanes : Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077) at 1/1000 dilution (Purified)

Lane 1 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : Human fetal heart lysates
Lane 3 : Mouse brain lysates
Lane 4 : Mouse heart lysates
Lane 5 : Rat brain lysates
Lane 6 : Rat heart lysates

Lysates/proteins at 20 µg per lane.

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

Predicted band size: 44 kDa
Observed band size: 40,43 kDa



Western blot - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

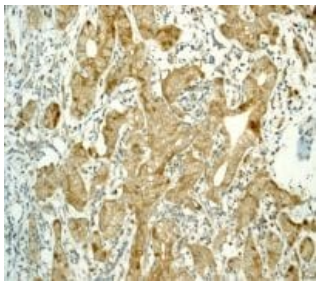
All lanes : Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077) at 1/1000 dilution

Lane 1 : A549 cell lysates
Lane 2 : HeLa cell lysates
Lane 3 : MCF-7 cell lysates

Lysates/proteins at 10 µg per lane.

Predicted band size: 44 kDa

This image was generated using the unpurified version of the product.

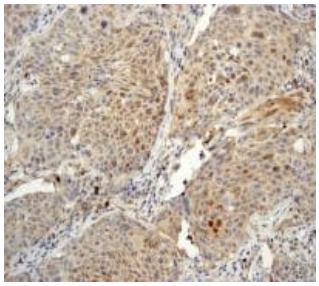


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

ab113077, at a 1/100 dilution, staining PHD1/prolyl hydroxylase in paraffin-embedded Human breast carcinoma tissue by Immunohistochemistry.

This image was generated using the unpurified version of the product.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

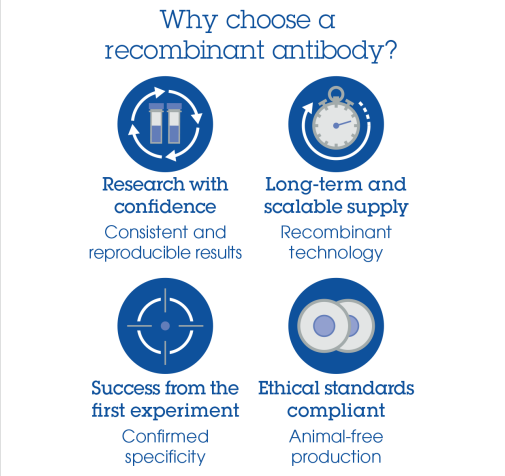


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

ab113077, at a 1/100 dilution, staining PHD1/prolyl hydroxylase in paraffin-embedded Human lung carcinoma tissue by Immunohistochemistry.

This image was generated using the unpurified version of the product.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Anti-PHD1/prolyl hydroxylase antibody [EPR2746] (ab113077)

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