




Product datasheet

Anti-PHD2 / prolyl hydroxylase antibody ab244389

[1 References](#) [5 Images](#)

Overview

Product name	Anti-PHD2 / prolyl hydroxylase antibody
Description	Rabbit polyclonal to PHD2 / prolyl hydroxylase
Host species	Rabbit
Tested applications	Suitable for: ICC, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Recombinant fragment within Human PHD2/ prolyl hydroxylase aa 200-300. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please <u>contact</u> our Scientific Support team to discuss your requirements. Database link: Q9GZT9 <div>  Run BLAST with  Run BLAST with </div>
Positive control	ICC: U-251 MG cells. IHC-P: Human cerebral cortex, placenta, skeletal muscle, and kidney tissue.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</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	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab244389 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
ICC		Use a concentration of 0.25 - 2 µg/ml. Fixation/Permeabilization: PFA/Triton X-100.
IHC-P		1/20 - 1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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.

Tissue specificity

According to PubMed:11056053, widely expressed with highest levels in skeletal muscle and heart, moderate levels in pancreas, brain (dopaminergic neurons of adult and fetal substantia nigra) and kidney, and lower levels in lung and liver. According to PubMed:12351678 widely expressed with highest levels in brain, kidney and adrenal gland. Expressed in cardiac myocytes, aortic endothelial cells and coronary artery smooth muscle.

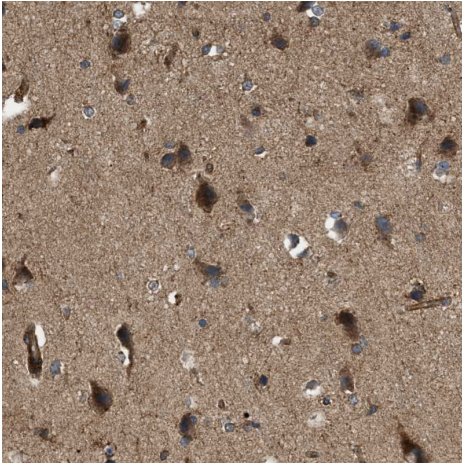
Involvement in disease

Defects in EGLN1 are the cause of erythrocytosis familial type 3 (ECYT3) [MIM:609820]. ECYT3 is an autosomal dominant disorder characterized by increased serum red blood cell mass, elevated serum hemoglobin and hematocrit, and normal serum erythropoietin levels.

Sequence similarities

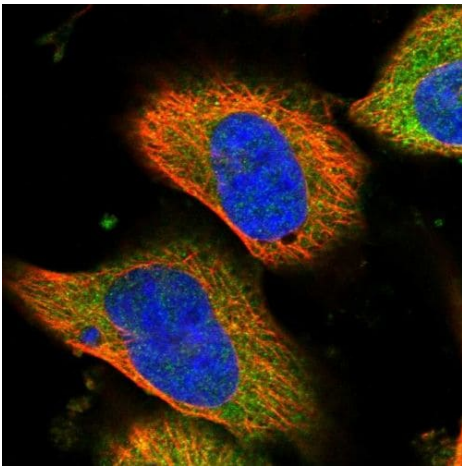
Contains 1 Fe2OG dioxygenase domain.
Contains 1 MYND-type zinc finger.

Images



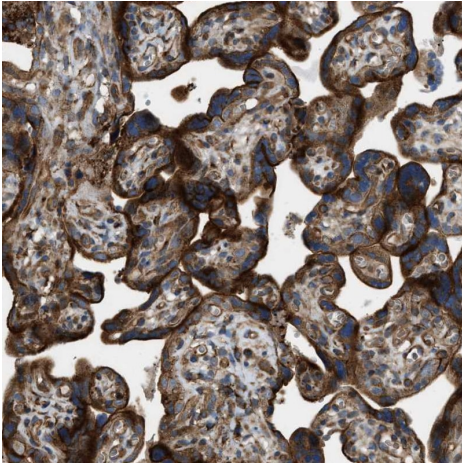
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD2 / prolyl hydroxylase antibody (ab244389)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cerebral cortex tissue labelling PHD2 / prolyl hydroxylase with ab244389 at 1/20 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.



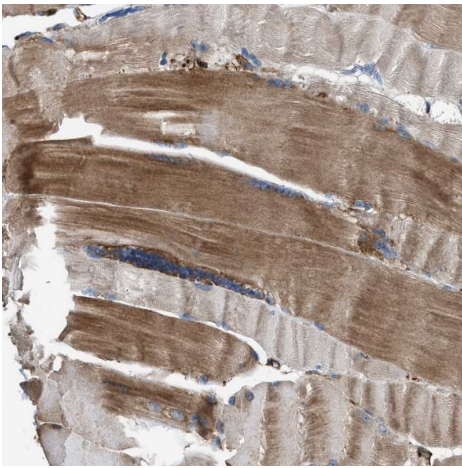
Immunocytochemistry - Anti-PHD2 / prolyl hydroxylase antibody (ab244389)

PFA-fixed, Triton X-100 permeabilized U-251 MG (human brain glioma cell line) cells stained for PHD2 / prolyl hydroxylase (green) using ab244389 at 4 µg/ml in ICC.



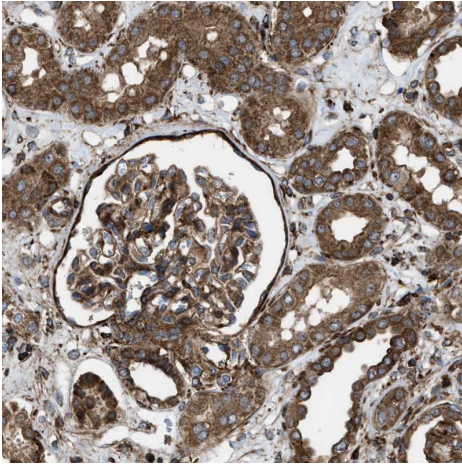
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD2 / prolyl hydroxylase antibody (ab244389)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human placenta tissue labelling PHD2 / prolyl hydroxylase with ab244389 at 1/20 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD2 / prolyl hydroxylase antibody (ab244389)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human skeletal muscle tissue labelling PHD2 / prolyl hydroxylase with ab244389 at 1/20 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PHD2 / prolyl hydroxylase antibody (ab244389)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling PHD2 / prolyl hydroxylase with ab244389 at 1/20 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.

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