abcam

Product datasheet

Anti-PHD2 / prolyl hydroxylase antibody [EPR3660(B)(2)] - BSA and Azide free ab232565

KO VALIDATED Recombinant RabMAb

3 Images

Overview

Product name	Anti-PHD2 / prolyl hydroxylase antibody [EPR3660(B)(2)] - BSA and Azide free
Description	Rabbit monoclonal [EPR3660(B)(2)] to PHD2 / prolyl hydroxylase - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human PHD2/ prolyl hydroxylase (N terminal). The exact sequence is proprietary.
Positive control	WB: Wild-type HAP1 cell lysate; HeLa and HepG2 cell lysates.
General notes	Ab232565 is the carrier-free version of ab133630. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. ab232565 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* 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

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	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3660(B)(2)
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab232565** in the following tested applications.

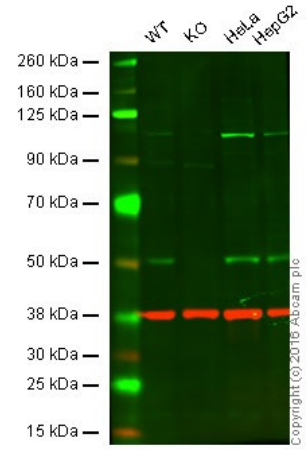
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 46 kDa.
IP		Use at an assay dependent concentration.

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.

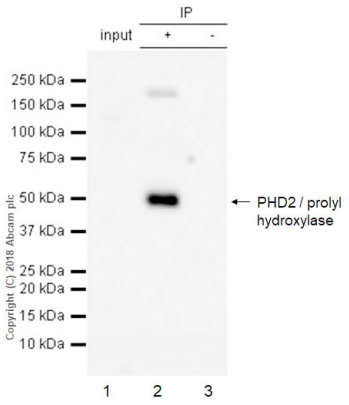
Images



Western blot - Anti-PHD2 / prolyl hydroxylase antibody [EPR3660(B)(2)] - BSA and Azide free (ab232565)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: PHD2 / prolyl hydroxylase knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: HepG2 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab133630 observed at 1X kDa. Red - loading control, ab8245, observed at 37 kDa.
ab133630 was shown to specifically react with PHD2 / prolyl hydroxylase when PHD2 / prolyl hydroxylase knockout samples were used. Wild-type and PHD2 / prolyl hydroxylase knockout samples were subjected to SDS-PAGE. ab133630 and ab8245 (loading control to GAPDH) were diluted 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.

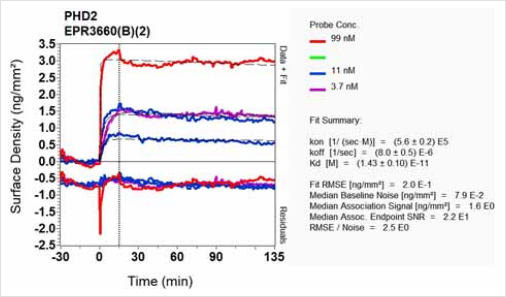
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133630).



Immunoprecipitation - Anti-PHD2 / prolyl hydroxylase antibody [EPR3660(B)(2)] - BSA and Azide free (ab232565)

ab133630 (purified) at 1:40 dilution (2µg) immunoprecipitating PHD2 / prolyl hydroxylase in SH-SY5Y treated with 0.1mM cobalt chloride for 8 hours whole cell lysate.
Lane 1 (input): SH-SY5Y (Human neuroblastoma epithelial cell) treated with 0.1mM cobalt chloride for 8 hours whole cell lysate 10µg
Lane 2 (+): ab133630 & SH-SY5Y treated with 0.1mM cobalt chloride for 8 hours whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab133630 in SH-SY5Y treated with 0.1mM cobalt chloride for 8 hours whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133630).



Other - Anti-PHD2 / prolyl hydroxylase antibody [EPR3660(B)(2)] - BSA and Azide free (ab232565)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133630).

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