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Anti-PHD1/prolyl hydroxylase Rabbit Monoclonal Antibody
Catalog # ABO14295

Specification

Anti-PHD1/prolyl hydroxylase Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, FC**
Primary Accession	Q96KS0
Host	**Rabbit**
Isotype	**Rabbit IgG**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-PHD1/prolyl hydroxylase Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Anti-PHD1/prolyl hydroxylase Rabbit Monoclonal Antibody - Additional Information

Gene ID 112398

Other Names
Prolyl hydroxylase EGLN2, 1.14.11.-, Egl nine homolog 2, 1.14.11.29 {ECO:0000255|PROSITE-ProRule:PRU00805, ECO:0000269|PubMed:11595184, ECO:0000269|PubMed:12039559, ECO:0000269|PubMed:15925519}, Estrogen-induced tag 6, EIT-6, HPH-3, Hypoxia-inducible factor prolyl hydroxylase 1, HIF-PH1, HIF-prolyl hydroxylase 1, HPH-1, Prolyl hydroxylase domain-containing protein 1, PHD1, EGLN2 (HGNC:14660)

Calculated MW
43650 MW KDa

Application Details
WB 1:500-1:2000
IHC 1:50-1:200
ICC/IF 1:50-1:200
FC 1:50

Subcellular Localization
Nucleus.

Tissue Specificity
Expressed in adult and fetal heart, brain, liver, lung, skeletal muscle, and kidney. Also expressed in testis and placenta. Highest levels in adult brain, placenta, lung, kidney, and testis. Expressed in hormone responsive tissues, including normal and cancerous mammary, ovarian and prostate epithelium..

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human PHD1/prolyl hydroxylase

Purification
Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-PHD1/prolyl hydroxylase Rabbit Monoclonal Antibody - Protein Information

Name EGLN2 (HGNC:14660)

Function
Prolyl hydroxylase that mediates hydroxylation of proline residues in target proteins, such as ATF4, IKBKB, CEP192 and HIF1A (PubMed:11595184, PubMed:12039559, PubMed:15925519, PubMed:16509823, PubMed:17114296, PubMed:23932902). Target proteins are preferentially recognized via a LXXLAP motif (PubMed:11595184, PubMed:12039559, PubMed:15925519). Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins (PubMed:11595184, PubMed:12039559, PubMed:12181324, PubMed:15925519, PubMed:19339211). Hydroxylates a specific proline found in each of the oxygen-dependent degradation (ODD) domains (N-terminal, NODD, and C-terminal, CODD) of HIF1A (PubMed:11595184, PubMed:12039559, PubMed:12181324, PubMed:15925519). Also hydroxylates HIF2A (PubMed:11595184, PubMed:12039559, PubMed:15925519). Has a preference for the CODD site for both HIF1A and HIF2A (PubMed:11595184, PubMed:12039559, PubMed:15925519). Hydroxylated HIFs are then targeted for proteasomal degradation via the von Hippel-Lindau ubiquitination complex (PubMed:11595184, PubMed:12039559, PubMed:15925519). Under hypoxic conditions, the hydroxylation reaction is attenuated allowing HIFs to escape degradation resulting in their translocation to the nucleus, heterodimerization with HIF1B, and increased expression of hypoxy- inducible genes (PubMed:11595184, PubMed:12039559, PubMed:<a

href="http://www.uniprot.org/citations/15925519" target="_blank">15925519). EGLN2 is involved in regulating hypoxia tolerance and apoptosis in cardiac and skeletal muscle (PubMed:11595184, PubMed:12039559, PubMed:15925519). Also regulates susceptibility to normoxic oxidative neuronal death (PubMed:11595184, PubMed:12039559, PubMed:15925519). Links oxygen sensing to cell cycle and primary cilia formation by hydroxylating the critical centrosome component CEP192 which promotes its ubiquitination and subsequent proteasomal degradation (PubMed:23932902). Hydroxylates IKBKB, mediating NF-kappa-B activation in hypoxic conditions (PubMed:17114296). Also mediates hydroxylation of ATF4, leading to decreased protein stability of ATF4 (By similarity).

Cellular Location
Nucleus

Tissue Location
Expressed in adult and fetal heart, brain, liver, lung, skeletal muscle, and kidney. Also expressed in testis and placenta. Highest levels in adult brain, placenta, lung, kidney, and testis. Expressed in hormone responsive tissues, including normal and cancerous mammary, ovarian and prostate epithelium

Anti-PHD1/prolyl hydroxylase Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-PHD1/prolyl hydroxylase Rabbit Monoclonal Antibody - Images

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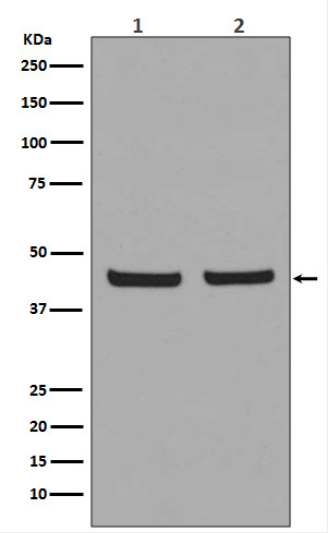

Western blot analysis of PHD1 in (1) HeLa cell lysate; (2) A549 cell lysate.