



PHD3 mouse mAb

Catalog No	YP-mAb-17943
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	EGLN3
Immunogen	Synthesized peptide derived from human PHD3
Specificity	This antibody detects endogenous levels of PHD3 at Human, Mouse,Rat
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	EGLN3/PHD3;PHD3;EC:1.14.11.-;EC:1.14.11.29;Egl nine homolog 3;EGLN3; Egl nine homolog 3 (EC 1.14.11.29) (HPH-1) (Hypoxia-inducible factor prolyl hydroxylase 3) (HIF-PH3) (HIF-prolyl hydroxylase 3) (HPH-3) (Prolyl hydroxylase domain-containing protein 3) (PHD3)
Observed Band	27 kDa
Calculated Molecular Weight	27 kDa
Cell Pathway	Nucleus . Cytoplasm . Colocalizes with WDR83 in the cytoplasm. .
Tissue Specificity	Widely expressed at low levels. Expressed at higher levels in adult heart (cardiac myocytes, aortic endothelial cells and coronary artery smooth muscle), lung and placenta, and in fetal spleen, heart and skeletal muscle. Also expressed in pancreas. Localized to pancreatic acini and islet cells.
Function	Prolyl hydroxylase that mediates hydroxylation of proline residues in target proteins, such as PKM, TELO2, ATF4 and HIF1A . Target proteins are preferentially recognized via a LXXLAP motif. Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins . Hydroxylates a specific proline found in each of the oxygen-dependent degradation (ODD) domains (N-terminal, NODD, and C-terminal, CODD) of HIF1A . Also



hydroxylates HIF2A . Has a preference for the CODD site for both HIF1A and HIF2A . Hydroxylation on the NODD site by EGLN3 appears to require prior hydroxylation on the CODD site . Hydroxylated HIFs are then targeted for proteasomal degradation via the von Hippel-Lindau ubiquitination complex . Under hypoxic conditions, the hydroxylation reaction is attenuated allowing HIFs to escape

Background

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images