

PHD3 RABBIT MAB

货号: N262709

产品全名: PHD3 兔单克隆抗体

基因符号 PHD3; HIFPH3; HIFP4H3

UNIPROT ID: Q9H6Z9

背景: 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 degradation resulting in their translocation to the nucleus, heterodimerization with HIF1B, and increased expression of hypoxia-inducible genes. EGLN3 is the most important isozyme in limiting physiological activation of HIFs (particularly HIF2A) in hypoxia. Also hydroxylates PKM in hypoxia, limiting glycolysis. Under normoxia, hydroxylates and regulates the stability of ADRB2. Regulator of cardiomyocyte and neuronal apoptosis. In cardiomyocytes, inhibits the anti-apoptotic effect of BCL2 by disrupting the BAX-BCL2 complex. In neurons, has a NGF-induced proapoptotic effect, probably through regulating CASP3 activity. Also essential for hypoxic regulation of neutrophilic inflammation. Plays a crucial role in DNA damage response (DDR) by hydroxylating TELO2, promoting its interaction with ATR which is required for activation of the ATR/CHK1/p53 pathway. Target proteins are preferentially recognized via a LXXLAP motif.

抗原: Recombinant protein of human PHD3

经过测试的应用: WB,IHC-P,IP

推荐稀释比: WB: 1/500-1/1000 IHC: 1/50-1/100 IP: 1/20

种属反应性: Rabbit

克隆性: Rabbit Monoclonal

克隆编号: R04-3K9

分子量: Calculated MW: 27 kDa; Observed MW: 27 kDa

亚型: IgG

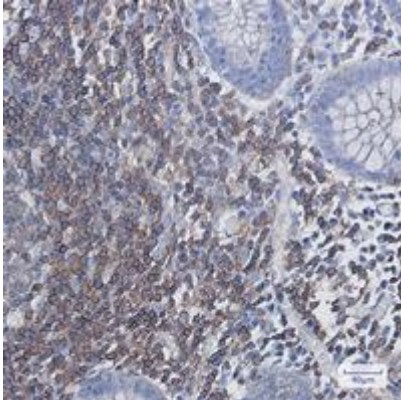
纯化: Affinity Purified

种属反应性: Human, Mouse and Rat

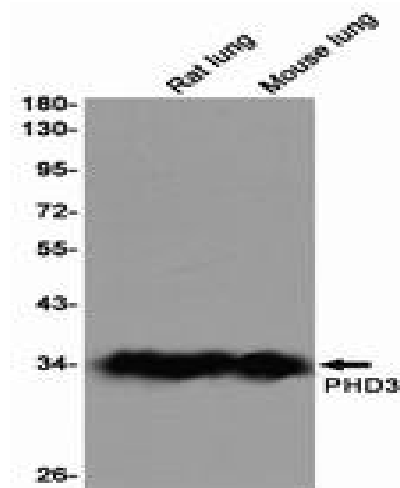
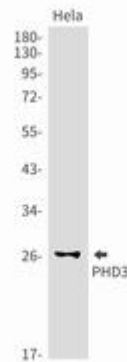
成分: PBS (without Mg²⁺ and Ca²⁺), pH 7.3 containing 50% glycerol, 0.5% BSA and 0.02% sodium azide

研究领域: Hypoxia Signal Transduction & Hypoxia-Inhibition

储存和运输: Store at -20°C. Avoid repeated freezing and thawing



Immunohistochemistry analysis of paraffin-embedded Human colon cancer using PHD3 antibody. High- pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Western blot analysis of PHD3 in rat lung and mouse lung lysates using PHD3 antibody.