

**Product Name: PHD3 Rabbit Monoclonal Antibody****Catalog #: AMRe87588**

For research use only.

**Summary**

<b>Description</b>	Recombinant rabbit monoclonal antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB, ICC/IF, IP
<b>Reactivity</b>	Human, Mouse, Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Supplied in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% protective protein. Stable for 12 months from date of receipt.
<b>Purification</b>	Affinity Purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000, ICC/IF 1:100-1:200, IP 1:50-1:100
<b>Molecular Weight</b>	Calculated MW: 27 kDa; Observed MW: 27 kDa

**Antigen Information**

<b>Gene Name</b>	PHD3
<b>Alternative Names</b>	PHD3; HIFPH3; HIFP4H3
<b>Gene ID</b>	112399
<b>SwissProt ID</b>	Q9H6Z9
<b>Immunogen</b>	Recombinant protein of human PHD3

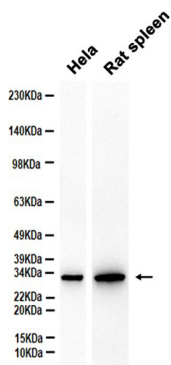
**Background**

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.

## Research Area

## Image Data



Western blot analysis of extracts from HeLa cells and Rat spleen tissue using PHD3 Rabbit Monoclonal Antibody at 1:1000.