OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA336284

EGLN1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, IP, WB
Recommended Dilution:	Immunohistochemistry-Paraffin: 2.5 - 5.0 ug/mL, Immunoprecipitation: 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence: 1:50 - 1:500, Immunohistochemistry: 2.5 - 5.0 ug/mL, Western Blot: 2 ug/mL, Knockout Validated, Knockdown Validated
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to an internal portion of mouse PHD2/HIF Prolyl Hydroxylase 2 (between residues 300-400). [UniProt# Q91YE3]
Formulation:	Tris-citrate/phosphate, pH 7, 0.1% Sodium azide. Store at 4C. Do not freeze.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	43 kDa
Gene Name:	egl-9 family hypoxia inducible factor 1
Database Link:	NP_071334 Entrez Gene 112405 MouseEntrez Gene 54583 Human Q9GZT9

View online »

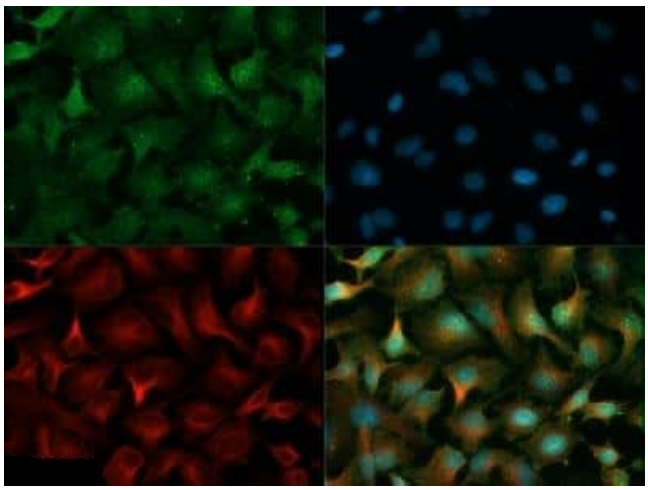
Background: HIF prolyl 4-hydroxylases (PHDs) are proyl hydroxylase domain-containing enzymes (PHD1/ Egln2, PHD2/ Egln1, PHD3/ Egln3, and P4H-TM) that mediate important physiological responses to hypoxia by modulating HIF1alpha levels. The HIF-alpha is regulated by hydroxylation, both by a family of PHDs leading to ubiquitination and proteasomal degradation, and by transcriptional inactivation following asparaginyl hydroxylation by FIH (factor inhibiting HIF). Under normoxic conditions, HIF Prolyl Hydroxylase 2 (HIF1-PH; also called PHD1 or Egln2) catalyzes the post-translational formation of 4-hydroxyproline through hydroxylation of a specific proline found in each of NODD/CODD domains of HIF1A and also hydroxylates HIF2A with preference for CODD site of HIF1A/HIF1B. After hydroxylation, HIFs undergo proteasomal degradation via VHL (von Hippel-Lindau) ubiquitination complex. However, under hypoxic conditions, the hydroxylation reaction is tempered which allows HIFs to escape degradation process followed by their nuclear translocation, heterodimerization with HIF1B, and increased expression of hypoxia-inducible genes. HIF1-PH, through regulating HIF1 stability, is involved in various hypoxia-influenced processes such as angiogenesis in retinal/cardiac functionality as well as tumor angiogenesis, and defecticve EGLN1 have been linked to ECYT3 (familial erythrocytosis type 3).

Synonyms: C1orf12; ECYT3; HALAH; HIF-PH2; HIFPH2; HPH-2; HPH2; PHD2; SM20; ZMYND6

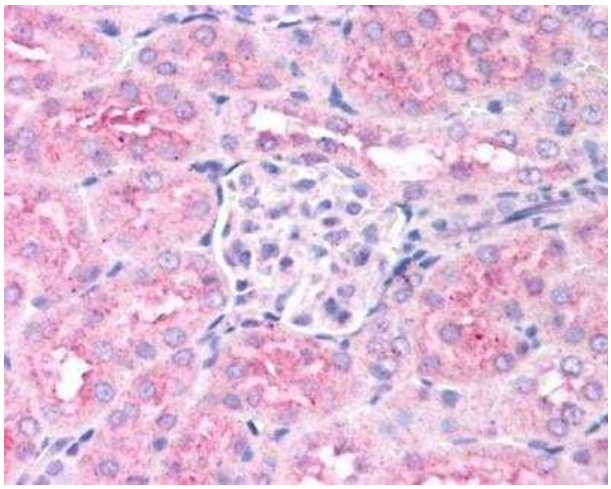
Note: This HIF Prolyl Hydroxylase 2 antibody is useful for Western blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin embedded sections and Immunoprecipitation. In Western blot a band is seen ~43 kDa representing HIF Prolyl Hydroxylase 2. There is also a non-specific band of similar intensity at ~75 kDa.

Protein Pathways: Pathways in cancer, Renal cell carcinoma

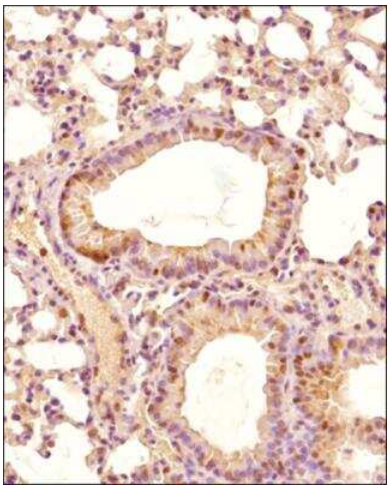
Product images:



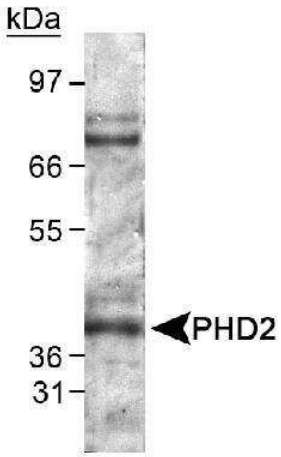
Immunocytochemistry/Immunofluorescence: EGLN1/PHD2 Antibody TA336284 - EGLN1/PHD2 antibody at 1:500 in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



Immunohistochemistry: EGLN1/PHD2 Antibody TA336284 - Staining of renal tubular epithelium in mouse using TA336284 at 2.5 ug/mL.



Immunohistochemistry-Paraffin: EGLN1/PHD2 Antibody TA336284 - Analysis of an FFPE mouse lung section using 1:200 dilution of EGLN1/PHD2 antibody. The staining was developed using HRP conjugated anti-rabbit secondary antibody and DAB reagent. The antibody generated a specific staining in the cytoplasm and nuclei of alveolar as well as bronchiolar epithelial cells. Cytoplasmic staining was observed in almost all cells while the nuclear positivity was seen in a subset of cells only.



Western Blot: EGLN1/PHD2 Antibody TA336284 - Detection of EGLN1/PHD2 in mouse kidney lysate. ECL exposure, 20 seconds.