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Egln2 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI11617

Product Information

Application	WB
Primary Accession	Q6AYU4
Other Accession	NM_001004083, NP_001004083
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Horse, Bovine
Predicted	Mouse, Rat, Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44681

Additional Information

Gene ID	308457
Alias Symbol	MGC93662, MGC93666, PHD-1, PHD1, HPH-1, HPH-3, HIF-PH1
Other Names	Egl nine homolog 2, 1.14.11.29, HPH-3, Hypoxia-inducible factor prolyl hydroxylase 1, HIF-PH1, HIF-prolyl hydroxylase 1, HPH-1, Prolyl hydroxylase domain-containing protein 1, PHD1, Egln2
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Egln2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Egln2 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

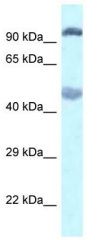
Name	Egln2 {ECO:0000312|RGD:631376}
Function	Prolyl hydroxylase that mediates hydroxylation of proline residues in target proteins, such as ATF4, IKBKB, CEP192 and HIF1A (PubMed:15925519). Target proteins are preferentially recognized via a LXXLAP motif (By similarity). Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational formation of 4- hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins (PubMed:15925519). Hydroxylates a specific proline found in each of the oxygen-dependent degradation (ODD) domains (N-terminal, NODD, and C- terminal, CODD) of HIF1A (By similarity). Also hydroxylates HIF2A (By similarity). Has a preference for the CODD site for

both HIF1A and HIF2A (By similarity). Hydroxylated HIFs are then targeted for proteasomal degradation via the von Hippel-Lindau ubiquitination complex (By similarity). 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 (By similarity). EGLN2 is involved in regulating hypoxia tolerance and apoptosis in cardiac and skeletal muscle (By similarity). Also regulates susceptibility to normoxic oxidative neuronal death (By similarity). 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 (By similarity). Hydroxylates IKBKB, mediating NF-kappa-B activation in hypoxic conditions (By similarity). Also mediates hydroxylation of ATF4, leading to decreased protein stability of ATF4 (By similarity).

Cellular Location Nucleus.

Tissue Location Expressed in heart, kidney, brain, liver, skeletal muscle, lung and spleen. Highest level in testis

Images



WB Suggested Anti-Egln2 Antibody Titration: 1.0 µg/ml
Positive Control: Rat Muscle