

ARG41862 anti-EGLN2 / PHD1 antibody

Package: 100 µl
Store at: -20°C

Summary

| | |
|---------------------|---|
| Product Description | Rabbit Polyclonal antibody recognizes EGLN2 / PHD1 |
| Tested Reactivity | Hu, Ms, Rat |
| Tested Application | IP, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | EGLN2 / PHD1 |
| Species | Human |
| Immunogen | Synthetic peptide within aa. 150-250 of Human EGLN2 / PHD1. (NP_444274.1) |
| Conjugation | Un-conjugated |
| Alternate Names | EIT6; HPH-3; HPH-1; HIF-prolyl hydroxylase 1; Egl nine homolog 2; EC 1.14.11.29; Estrogen-induced tag 6; PHD1; Prolyl hydroxylase domain-containing protein 1; HIFPH1; HIF-PH1; Hypoxia-inducible factor prolyl hydroxylase 1 |

Application Instructions

| Application table | Application | Dilution |
|-------------------|--|----------------|
| | IP | 1:20 - 1:50 |
| | WB | 1:500 - 1:2000 |
| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. | |
| Positive Control | HeLa | |
| Observed Size | ~ 45 kDa | |

Properties

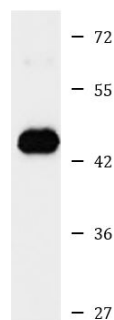
| | |
|---------------------|---|
| Form | Liquid |
| Purification | Affinity purified. |
| Buffer | PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol. |
| Preservative | 0.02% Sodium azide |
| Stabilizer | 50% Glycerol |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

| | |
|-----------------------|--|
| Gene Symbol | EGLN2 |
| Gene Full Name | egl-9 family hypoxia-inducible factor 2 |
| Background | The hypoxia inducible factor (HIF) is a transcriptional complex that is involved in oxygen homeostasis. At normal oxygen levels, the alpha subunit of HIF is targeted for degradation by prolyl hydroxylation. This gene encodes an enzyme responsible for this post-translational modification. Alternative splicing results in multiple transcript variants. Read-through transcription also exists between this gene and the upstream RAB4B (RAB4B, member RAS oncogene family) gene. [provided by RefSeq, Feb 2011] |
| Function | 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. 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. EGLN2 is involved in regulating hypoxia tolerance and apoptosis in cardiac and skeletal muscle. Also regulates susceptibility to normoxic oxidative neuronal death. 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. Hydroxylates IKBKB, mediating NF-kappaB activation in hypoxic conditions. Target proteins are preferentially recognized via a LXXLAP motif. [UniProt] |
| Calculated Mw | 44 kDa |
| Cellular Localization | Nucleus. [UniProt] |

Images



HeLa

ARG41862 anti-EGLN2 / PHD1 antibody WB image

Western blot: 25 µg of HeLa cell lysate stained with ARG41862 anti-EGLN2 / PHD1 antibody at 1:1000 dilution.



ARG41862 anti-EGLN2 / PHD1 antibody IP image

Immunoprecipitation: 150 µg extracts of HeLa cells were immunoprecipitated and stained with ARG41862 anti-EGLN2 / PHD1 antibody at 1:1000 dilution.