

Human EGLN1/PHD2 Alexa Fluor® 350-conjugated Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2445B
Catalog Number: FAB7680U
100 µg

DESCRIPTION

| | |
|---------------------------|--|
| Species Reactivity | Human |
| Specificity | Detects human EGLN/PHD2 in direct ELISAs. In direct ELISAs, no cross-reactivity with human PHD1 and PHD3 is observed. |
| Source | Recombinant Monoclonal Rabbit IgG Clone # 2445B |
| Purification | Protein A or G purified from cell culture supernatant |
| Immunogen | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human EGLN1/PHD2 Ala2-Phe426 Accession # Q9GZT9 |
| Conjugate | Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm |
| Formulation | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

| | Recommended Concentration | Sample |
|-----------------------|----------------------------------|-----------------------------------|
| Flow Cytometry | 0.25-1 µg/10 ⁶ cells | Jurkat Human T Cell Leukemia Line |

PREPARATION AND STORAGE

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|--------------------------------|--|
| Shipping | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied. |

BACKGROUND

PHD2 (Prolyl Hydroxylase Domain-containing protein 2; also HPH2, EGLN1 and HIF-PH2) is a 45-47 kDa dioxygenase member of the PH family of enzymes. It is ubiquitously expressed, and serves to regulate the availability of the oxygen-sensitive HIF transcription factor. Active HIF1α is a heterodimer of α- and β-subunits and when intact, promotes VEGF and EPO production. The β-subunit is constitutively expressed, while α-subunit levels are regulated by intracellular oxygen concentration. At normoxic levels, the α-subunit is hydroxylated on Pro by one of three PHDs, inducing its ubiquitination/degradation. The hydroxylation event requires oxygen, and thus PH activity (particularly PHD2) is a measure of a cell's oxygen concentration. Human PHD2 is 426 amino acids (aa) in length. It contains an NES (aa 6-20), a Zn-finger region (aa 21-58), and a catalytic domain (aa 291-392). There are five nitrosylated cysteines plus one acetylated alanine. Two isoform variants are known, one that shows a deletion of aa 338-359, and another that contains a 17 aa substitution for aa 58-175. Over aa 157-426, human PHD2 shares 93% aa sequence identity with mouse PHD2.

PRODUCT SPECIFIC NOTICES

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