

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human EGLN2/PHD1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human EGLN2/PHD1 Asp2-Thr407 Accession # Q96KS0
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

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. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

EGLN2 (EGL/EGg Laying-Nine #2; also known as PHD1 and HPH3) is a 43 kDa member of the EglN family of proteins. It is ubiquitously expressed and found principally in the nucleus. EGLN2 hydroxylates proline on HIF-1α. HIF-1 is an α/β heterodimeric transcriptional activator that upregulates genes involved in mitigating the effects of hypoxia. Normally, and in the presence of abundant oxygen, the HIF-1 α-chain is hydroxylated by PHD family members, which results in its ubiquitylation and degradation. Under low oxygen tension, EGLN2 activity is decreased, the HIF-1α subunit is retained, and HIF-1 activates genes. Human EGLN2 is 407 amino acids (aa) in length (SwissProt #:Q96KS0). It contains one iron 2-oxoglutarate (Fe2OG) dioxygenase domain (aa 278-376) plus an iron-binding (His297 and His358), and a 2-oxoglutarate-binding (Arg367) site. There is one alternative start site at Met34 that generates a 40 kDa isoform. In addition, there is another potential splice form that shows a 16 aa substitution for aa 1-281. Full-length human EGLN2 shares 91% aa sequence identity with mouse EGLN2.

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