

DESCRIPTION

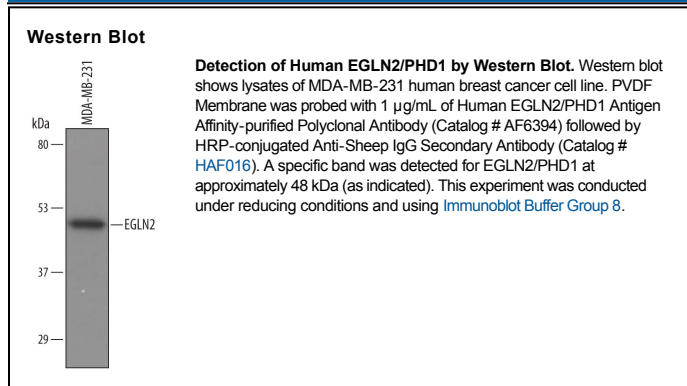
Species Reactivity	Human
Specificity	Detects human EGLN2/PHD1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human EGLN2/PHD1 Asp2-Thr407 Accession # Q96KS0
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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
Western Blot	1 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with recombinant human EGLN2/PHD1

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.