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**Product Data Sheet**


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Product Name: EGLN3 Human  
 Cat. No.: GP23376  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	E.coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Egl nine homolog 3 (C. elegans); Hypoxia-inducible factor prolyl hydroxylase 3; Prolyl hydroxylase domain-containing protein 3; HIF-PH3; PHD3; egl nine-like protein 3 isoform; HIF prolyl hydroxylase 3; EC 1.14.11.29; HPH-1; HPH-3.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMPLGHI MRLDLEKIAL EYIVPCLHEV GFCYLDNFLG EVVGDCVLER VKQLHCTGAL RDGQLAGPRA GVSKRHLRGD QITWIGGNEE GCEAISFLLS LIDRLVLYCG SRLGKYVKE RSKAMVACYP GNGTGYVRHV DNPNGDGRCI TCIYYLNKNW DAKLHGGILR IFPEGKSFIA DVEPIFDRLI FFWSDRRNPH EVQPSYATRY AMTVWYFDAE ERAEAKKKFR NLTRKTESAL TED		
Formulation	The EGLN3 solution (0.25mg/1ml) contains 20mM Tris-HCl buffer (pH 8.0), 300mM NaCl, 5mM DTT, 2mM EDTA and 50% glycerol.		

**Introduction**

Egl Nine Homolog 3 (EGLN3) belongs to the EGLN family of prolyl hydroxylases. EGLN3 catalyzes hydroxylation of the  $\alpha$  subunit of hypoxia-inducible factor-1, which targets hypoxia-inducible factor-1 for ubiquitination by a ubiquitin ligase complex containing the von Hippel-Lindau (VHL) tumor suppressor. EGLN3 is the most significant isozyme in limiting physiological activation of HIFs (especially HIF2A) in hypoxia. EGLN3 is activated in cardiovascular cells and HeLa cells after exposure to hypoxia. In addition, EGLN3 hydroxylates PKM2 in hypoxia, thus limiting glycolysis. Under normoxia, EGLN3 hydroxylates and regulates the stability of ADRB2. EGLN3 is inhibited by polynitrogen compounds possibly by chelation to Fe<sup>2+</sup> ions.

**Stability**

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer

**Caution: Product has not been fully validated for medical applications. For research use only.**

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

EGLN3 Human Recombinant produced in E. coli is a single polypeptide chain containing 263 amino acids (1-239) and having a molecular mass of 29.8 kDa. EGLN3 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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