GLN3 抗原（重组蛋白）

中文名称： EGLN3 抗原（重组蛋白）

英文名称： EGLN3 Antigen (Recombinant Protein)

别　名： PHD3; HIFPH3; HIFP4H3

储　存： 冷冻（-20℃）

相关类别： 抗原

概述

Fusion protein corresponding to a region derived from 1-239 amino acids of human EGLN3

技术规格

Full name:	egl-9 family hypoxia inducible factor 3
Synonyms:	PHD3; HIFPH3; HIFP4H3
Swissprot:	Q9H6Z9
Gene Accession:	BC064924
Purity:	>85%, as determined by Coomassie blue stained SDS-PAGE
Expression system:	Escherichia coli
Tags:	His tag C-Terminus, GST tag N-Terminus
Background:	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. Hydroxylation on the NODD site

	by EGLN3 appears to require prior hydroxylation on the CODD site. 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 hypoxy-inducible genes. EGLN3 is the most important isozyme in limiting physiological activation of HIFs (particularly HIF2A) in hypoxia. Also hydroxylates PKM in hypoxia, limiting glycolysis. Under normoxia, hydroxylates and regulates the stability of ADRB2. Regulator of cardiomyocyte and neuronal apoptosis.