

Datasheet for ABIN5712938
EGLN3 Protein (AA 2-239) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	100 µg
Target:	EGLN3
Protein Characteristics:	AA 2-239
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EGLN3 protein is labelled with His tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	PLGHIMRLDL EKIALEYIVP CLHEVGFCYL DNFLGEVVDG CVLERVKQLH YNGALRDGQL AGPCAGVSKR HLRGDQITWI GGNEEGCEAI NFLSLIDRL VLYCGSRLGK YYVKERSKAM VACYPGNGTG YVRHVDNPNG DGRCITCIYY LNKNWDAKLH GGVLRIFFPEG KSFVADVEPI FDRLLFFWSD RRPHEVQPS YATRYAMTVW YFDAEERAEA KKKFRNLTRK TESALAKD
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

Target:	EGLN3
Alternative Name:	EGLN3 (EGLN3 Products)
Background:	Plays a crucial role in DNA damage response (DDR) by hydroxylating TEL02, promoting its

Target Details

interaction with ATR which is required for activation of the ATR/CHK1/p53 pathway . 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 hypoxia-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. In cardiomyocytes, inhibits the anti-apoptotic effect of BCL2 by disrupting the BAX-BCL2 complex. In neurons, has a NGF-induced proapoptotic effect, probably through regulating CASP3 activity. Also essential for hypoxic regulation of neutrophilic inflammation. Target proteins are preferentially recognized via a LXXLAP motif.¹ Publication

Molecular Weight: 31.2 kDa

UniProt: [Q91UZ4](#)

Pathways: [Positive Regulation of Endopeptidase Activity](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

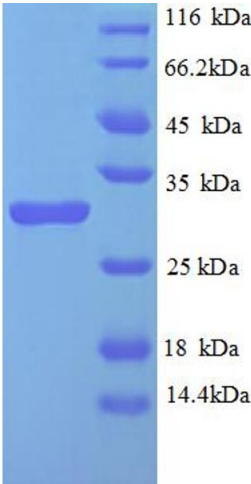
Format: Liquid

Concentration: 0.1-2 mg/mL

Buffer: 20 mM Tris-HCl based buffer, pH 8.0

Storage: -80 °C, 4 °C, -20 °C

Storage Comment: Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.



SDS-PAGE

Image 1.