

Datasheet for ABIN5709449

PHD1 Protein (AA 283-407, partial) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	100 µg
Target:	PHD1 (EGLN2)
Protein Characteristics:	AA 283-407, partial
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PHD1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	MVACYPGNGL GYVRHVDNPH GDGRCITCIY YLNQNWDVKV HGGLLQIFPE GRPVVANIEP LFDRLIFWS DRRNPHEVKP AYATRYAITV WYFDAKERA AKDKYQLASG QKGVQVPVSQ PPTPT
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

Target:	PHD1 (EGLN2)
Alternative Name:	EGLN2 (EGLN2 Products)
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,

Target Details

NODD, and C-terminal, CODD) of HIF1A. Also hydroxylates HIF2A. Has a preference for the CODD site for both HIF1A and HIF2A. 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. EGLN2 is involved in regulating hypoxia tolerance and apoptosis in cardiac and skeletal muscle. Also regulates susceptibility to normoxic oxidative neuronal death. Links oxygen sensing to cell cycle and primary cilia formation by hydroxylating the critical centrosome component CEP192 which promotes its ubiquitination and subsequent proteasomal degradation. Hydroxylates IKBKB, mediating NF-kappaB activation in hypoxic conditions. Target proteins are preferentially recognized via a LXXLAP motif.

Molecular Weight: 18.2 kDa

UniProt: [Q96KS0](#)

Pathways: [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Cell RedoxHomeostasis](#)

Application Details

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

Restrictions: For Research Use only

Handling

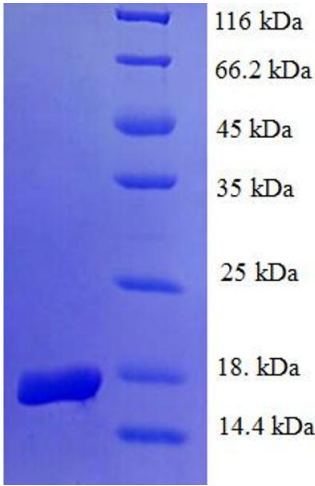
Format: Liquid

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.