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## Datasheet for ABIN7177168 anti-EGLN3 antibody (AA 2-239) (HRP)

### Overview

Quantity:	100 µg
Target:	EGLN3
Binding Specificity:	AA 2-239
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This EGLN3 antibody is conjugated to HRP
Application:	ELISA

### Product Details

Immunogen:	Recombinant Mouse Egl nine homolog 3 protein (2-239AA)
Isotype:	IgG
Cross-Reactivity:	Mouse
Purification:	>95%, Protein G purified

### Target Details

Target:	EGLN3
Alternative Name:	Egln3 ( <a href="#">EGLN3 Products</a> )
Background:	Background: Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins.

## Target Details

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.

Aliases: EglN3Egl nine homolog 3 antibody, EC 1.14.11.29 antibody, Hypoxia-inducible factor prolyl hydroxylase 3 antibody, HIF-PH3 antibody, HIF-prolyl hydroxylase 3 antibody, HPH-3 antibody, Prolyl hydroxylase domain-containing protein 3 antibody, PHD3 antibody, SM-20 antibody

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

Buffer: Preservative: 0.03 % Proclin 300  
Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

## Handling

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Storage: -20 °C, -80 °C

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Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.