Datasheet for ABIN7151448

anti-EGLN3 antibody (AA 1-120)

2 Images

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Overview

Quantity:	100 µL
Target:	EGLN3
Binding Specificity:	AA 1-120
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This EGLN3 antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant Human Egl nine homolog 3 protein (1-120AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antigen Affinity Purified

Target Details

Target:	EGLN3
Alternative Name:	EGLN3 (EGLN3 Products)
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 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. 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. Plays a crucial role in DNA damage response (DDR) by hydroxylating TELO2, promoting its interaction with ATR which is required for activation of the ATR/CHK1/p53 pathway. Target proteins are preferencially recognized via a LXXLAP motif. Aliases: Egl 9 family hypoxia inducible factor 3 antibody, Egl nine homolog 3 (C. elegans) antibody, Egl nine homolog 3 antibody, Egl nine like protein 3 isoform antibody, EGL9 homolog of C. elegans 3 antibody, EGLN3 antibody, EGLN3_HUMAN antibody, Factor responsive smooth muscle protein antibody, HIF Prolyl Hydroxylase 3 antibody, HIF-PH3 antibody, HIF-prolyl hydroxylase 3 antibody, HIFP4H3 antibody, HIFPH3 antibody, HPH-1 antibody, HPH-3 antibody, Hypoxia-inducible factor prolyl hydroxylase 3 antibody, P4H3 antibody, PHD3 antibody, Prolyl Hydroxylase Domain Containing Protein 3 antibody, Prolyl hydroxylase domain-containing protein 3 antibody, SM20 antibody
UniProt:	Q9H6Z9
Pathways:	Positive Regulation of Endopeptidase Activity

Application Details

Application Notes:	Recommended dilution: IHC:1:20-1:200,
Restrictions:	For Research Use only

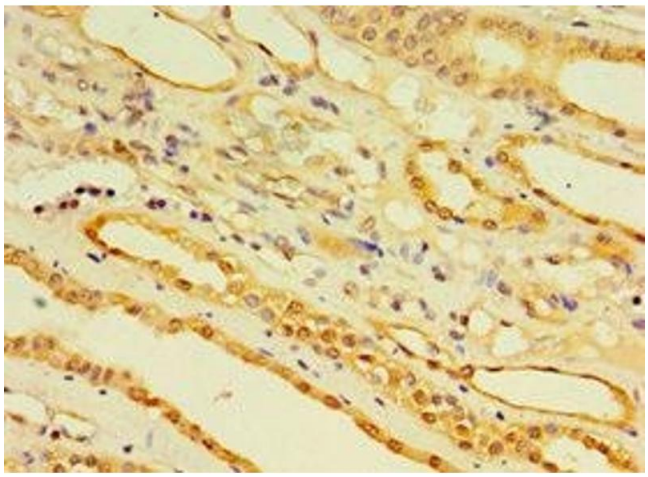
Handling

Format:	Liquid

Handling

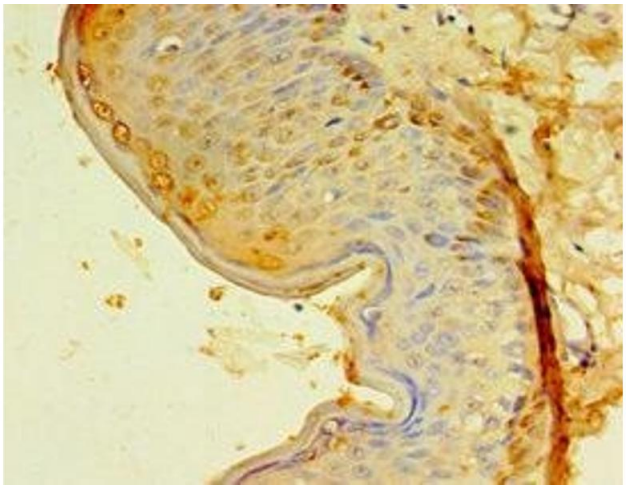
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human kidney tissue using ABIN7151448 at dilution of 1:100



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human skin tissue using ABIN7151448 at dilution of 1:100