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Datasheet for ABIN7151444

anti-PHD1 antibody (AA 283-407)

3 Images

Overview

Quantity:	100 µg
Target:	PHD1 (EGLN2)
Binding Specificity:	AA 283-407
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PHD1 antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human Egl nine homolog 2 protein (283-407AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	PHD1 (EGLN2)
Alternative Name:	EGLN2 (EGLN2 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. 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.

Aliases: DKFZp434E026 antibody, EGL nine (C.elegans) homolog 2 antibody, Egl nine homolog 2 (C. elegans) antibody, Egl nine homolog 2 antibody, EGLN 2 antibody, EGLN2 antibody, EGLN2_HUMAN antibody, EIT 6 antibody, EIT6 antibody, Estrogen-induced tag 6 antibody, HIF P4H 1 antibody, HIF PH1 antibody, HIF prolyl hydroxylase 1 antibody, HIF-PH1 antibody, HIF-prolyl hydroxylase 1 antibody, HIFPH 1 antibody, HIFPH1 antibody, HPH 3 antibody, HPH-1 antibody, HPH-3 antibody, HPH3 antibody, Hypoxia inducible factor prolyl hydroxylase 1 antibody, Hypoxia-inducible factor prolyl hydroxylase 1 antibody, P4H1 antibody, PHD 1 antibody, PhD1 antibody, prolyl hydroxylase domain containing protein 1 antibody, Prolyl hydroxylase domain-containing protein 1 antibody

UniProt: [Q96KS0](#)

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

Application Details

Application Notes: Recommended dilution: IHC:1:20-1:200, IF:1:50-1:200,

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

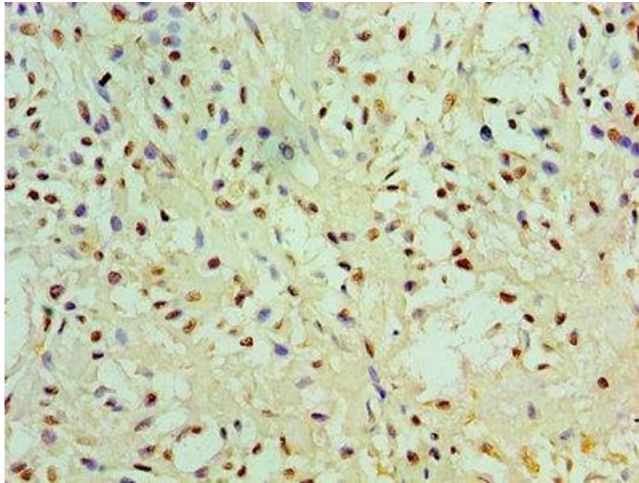
Handling

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

Storage: -20 °C,-80 °C

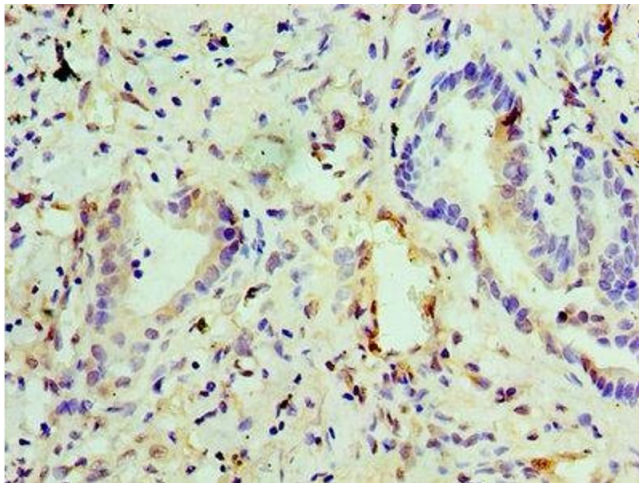
Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



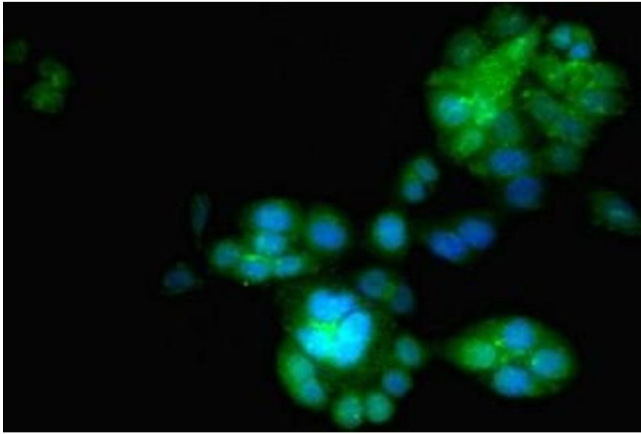
Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human breast cancer using ABIN7151444 at dilution of 1:100



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human lung tissue using ABIN7151444 at dilution of 1:100



Immunofluorescence

Image 3. Immunofluorescent analysis of PC-3 cells using ABIN7151444 at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)