Datasheet for ABIN863097

anti-HIF1A antibody (AA 329-530)

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Overview

Quantity:	100 µg
Target:	HIF1A
Binding Specificity:	AA 329-530
Reactivity:	Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HIF1A antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant fragment corresponding to amino acids 329-530
Clone:	ESEE122
Isotype:	IgG1
Specificity:	Detects ~116 kDa. Specific for HIF1Alpha.
Cross-Reactivity:	Cow, Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	HIF1A

Target Details

Alternative Name:	HIF 1 alpha (HIF1A Products)
Background:	Hypoxia-inducible factor 1 (HIF1) is a heterodimeric transcription factor that plays a critical role in the cellular response of hypoxia (1). The HIF1 complex consists of two subunits, HIF1-Alpha and HIF1-Beta, which are basic helix-loop-helix proteins of the PAS family (2). HIF1 regulates the transcription of a broad range of genes that facilitate responses to the hypoxic environment, including genes regulating angiogenesis, erythropoiesis, cell cycle, metabolism and apoptosis. The widely expressed HIF-1α is typically degraded rapidly in normoxic cells by the ubiquitin/proteasomal pathway. Under normoxic conditions, HIF-1α is proline hydroxylated leading to a conformational change that promotes binding to the von Hippel Lindau protein (VLH) E3 ligase complex, ubiquitination and proteasomal degradation follows (3, 4). Both hypoxic conditions and chemical hydroxylase inhibitors (such as desferrioxamine and cobalt) inhibit HIF-1α degradation and lead to its stabilization. In addition, HIF-1α can be induced in an oxygen-independent manner by various cytokines through the PI3K-AKT-mTOR pathway (5-7).
Gene ID:	15251
NCBI Accession:	NP_034561
UniProt:	Q61221
Pathways:	Positive Regulation of Peptide Hormone Secretion, Regulation of Hormone Metabolic Process, Regulation of Hormone Biosynthetic Process, Cellular Response to Molecule of Bacterial Origin, Carbohydrate Homeostasis, Transition Metal Ion Homeostasis, Tube Formation, Regulation of Carbohydrate Metabolic Process, Signaling Events mediated by VEGFR1 and VEGFR2, VEGFR1 Specific Signals, Warburg Effect

Application Details

Application Notes:	• WB (1:1000) • IHC (1:100) • ICC/IF (1:50) • optimal dilutions for assays should be determined by the user.
Comment:	1 µg/ml of ABIN863096 was sufficient for detection of HIF1α in 20 µg of CoCl2-induced Hela cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
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
Storage Comment:	-20°C

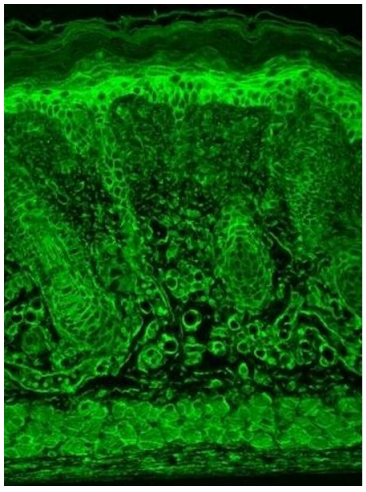
Publications

Product cited in:

Voth, Gwin, Francis, Balczon, Frank, Pittet, Wagener, Moser, Alexeyev, Housley, Audia, Piechocki, Madera, Simmons, Crawford, Stevens: "Virulent Pseudomonas aeruginosa infection converts antimicrobial amyloids into cytotoxic prions." in: **FASEB journal : official publication of the Federation of American Societies for Experimental Biology**, Vol. 34, Issue 7, pp. 9156-9179, (2020) (PubMed).

Epelbaum, Youssef, Lacor, Chaurand, Duplus, Brugg, Duyckaerts, Delatour: "Acute amnestic encephalopathy in amyloid-β oligomer-injected mice is due to their widespread diffusion in vivo. " in: **Neurobiology of aging**, Vol. 36, Issue 6, pp. 2043-52, (2015) (PubMed).

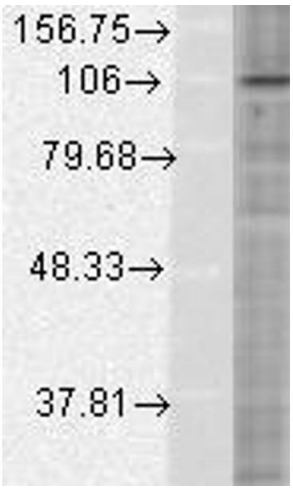
Images



Immunohistochemistry

Image 1. Immunohistochemistry analysis using Mouse Anti-HIF1 alpha Monoclonal Antibody, Clone ESEE122 (ABIN863096 and ABIN863097). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-HIF1 alpha Monoclonal Antibody (ABIN863096 and ABIN863097) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Membranous and cytoplasmic localization in the epidermis, positive hair

follicles, muscle and dermis. .



Western Blotting

Image 2. Hif1alpha WB 1 in 500 in Hela 20ug untreated

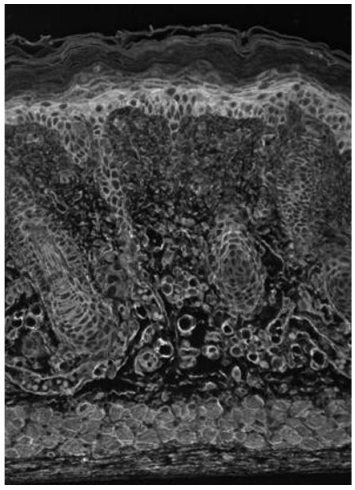


Image 3. HIF1alpha (EP190b), Mosue backskin.