Datasheet for ABIN7250482

anti-ARNT antibody

2 Images

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Overview

Quantity:	200 µL
Target:	ARNT
Reactivity:	Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ARNT antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	Recombinant Protein
Isotype:	IgG
Characteristics:	Monoclonal Antibody
Purification:	Protein A purification

Target Details

Target:	ARNT
Alternative Name:	HIF1 beta (ARNT Products)
Background:	Hypoxia-inducible factor 1 (HIF1) is a heterodimeric transcription factor that plays a critical role in the cellular response to hypoxia (1). The HIF1 complex consists of two subunits, HIF-1α and HIF-1β, which are basic helix-loop-helix proteins of the PAS (Per, ARNT, Sim) family (2). HIF1

Target Details

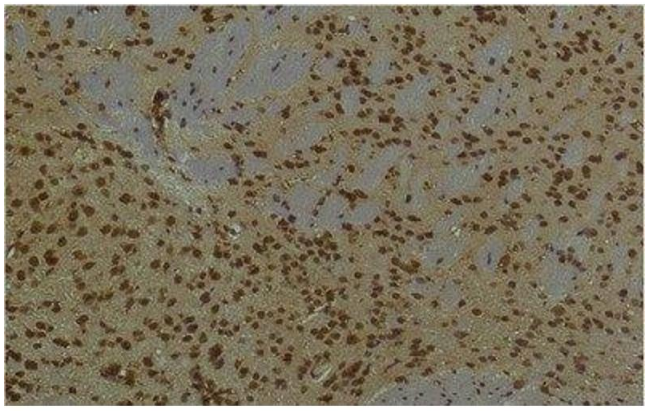
	regulates the transcription of a broad range of genes that facilitate responses to the hypoxic environment, including genes regulating angiogenesis, erythropoiesis, cell cycle, metabolism and apoptosis. The widely expressed HIF-1α is typically degraded rapidly in normoxic cells by the ubiquitin/proteasomal 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).HIF-1β is also known as AhR nuclear translocator (ARNT) due to its ability to partner with the aryl hydrocarbon receptor (AhR) to form a heterodimeric transcription factor complex (8). Together with AhR, HIF-1β plays an important role in xenobiotics metabolism (8).
Molecular Weight:	87 kDa
UniProt:	P27540
Pathways:	Regulation of Hormone Metabolic Process, Regulation of Hormone Biosynthetic Process, Regulation of Carbohydrate Metabolic Process, Signaling Events mediated by VEGFR1 and VEGFR2, Warburg Effect

Application Details

Application Notes:	WB 1:1000-2000, IHC 1:100-200
Restrictions:	For Research Use only

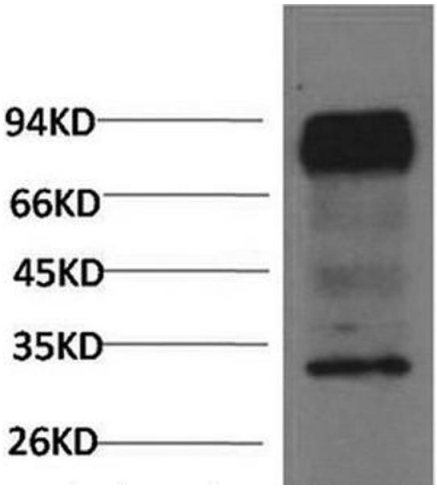
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS with 0.02 % sodium azide, 0.5 % BSA and 50 % glycerol, pH 7.4
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:	Store at -20°C. Avoid freeze / thaw cycles.



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemistry of paraffin-embedded Mouse brain tissue using HIF1 bata Monoclonal Antibody at dilution of 1:200.



Western Blotting

Image 2. Western Blot analysis of Mouse brain using HIF1 bata Monoclonal Antibody at dilution of 1:2000.