Recombinant HIF1 beta Monoclonal Antibody

Catalog No. E-AB-81565

Note: Centrifuge before opening to ensure complete recovery of vial contents.

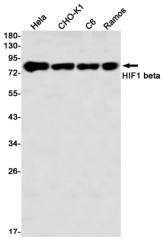
Description

Reactivity	Human,Mouse,Rat,Hamster
Immunogen	Recombinant protein of human HIF1 beta
Host	Rabbit
Isotype	IgG
Clone	R05-3B2
Purification	Affinity Purified
Conjugation	Unconjugated
Buffer	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% protective protein

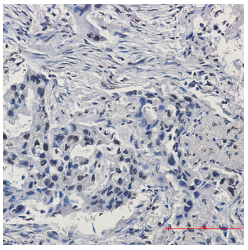
Applications — Recommended Dilution

WB	1:500-1:1000
IHC	1:50-1:100

Data



Western blot detection of HIF1 beta in Hela,CHO-K1,C6,Ramos using HIF1 beta Rabbit mAb(1:1000 diluted)
Observed Mw:87kDa
Calculated Mw:87kDa



Immunohistochemistry of HIF1 beta in paraffin-embedded Human lung cancer tissue using HIF1 beta Rabbit mAb at dilution 1:50

Preparation & Storage

Storage	Store at -20℃. Avoid freeze / thaw cycles.

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 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

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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).

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