

Product datasheet for **TA326476**

HIF-1 alpha (HIF1A) Mouse Monoclonal Antibody [Clone ID: ESEE122]

Product data:

Product Type:	Primary Antibodies
Clone Name:	ESEE122
Applications:	IHC, WB
Recommended Dilution:	IHC: 1:1000-1:8000, IF/ICC: 8-21 ug/ml
Reactivity:	Human, Mouse, Rat, Cow
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant fragment corresponding to amino acids 329-530
Formulation:	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	hypoxia inducible factor 1 alpha subunit
Database Link:	NP_001521 Entrez Gene 15251 Mouse Entrez Gene 29560 Rat Entrez Gene 3091 Human Q16665



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Background:

Hypoxia-inducible factor 1 (HIF1) is a heterodimeric transcription factor that plays a critical role in the cellular response of hypoxia . The HIF1 complex consists of two subunits, HIF1-Alpha and HIF1-Beta, which are basic helix-loop-helix proteins of the PAS family . 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-1 is typically degraded rapidly in normoxic cells by the ubiquitin/proteasomal pathway. Under normoxic conditions, HIF-1 is proline hydroxylated leading to a conformational change that promotes binding to the von Hippel Lindau protein (VHL) E3 ligase complex; ubiquitination and proteasomal degradation follows . Both hypoxic conditions and chemical hydroxylase inhibitors (such as desferrioxamine and cobalt) inhibit HIF-1 degradation and lead to its stabilization. In addition, HIF-1 can be induced in an oxygen-independent manner by various cytokines through the PI3K-AKT-mTOR pathway .

Synonyms:

bHLHe78; HIF-1-alpha; HIF-1A; HIF-1alpha; HIF1; HIF1-ALPHA; MOP1; PASD8

Note:

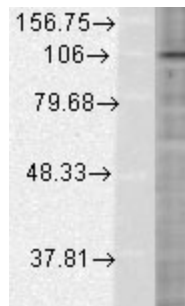
Specific for HIF1Alpha

Protein Families:

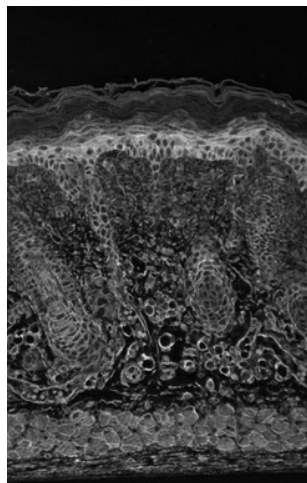
Transcription Factors

Protein Pathways:

mTOR signaling pathway, Pathways in cancer, Renal cell carcinoma

Product images:

Western blot analysis of HIF1 Alpha in HeLa cell lysates using a 1:500 dilution of the antibody



IHC analysis of HIF1Alpha tested on mouse backskin sections. Courtesy of Dr. Turksen, Ottawa Hospital Research Institute, Canada.