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Product datasheet for AM50284PU-S

HIF-1 alpha (HIF1A) Mouse Monoclonal Antibody [Clone ID: HIF1A-84]

Product data:

Product Type:	Primary Antibodies
Clone Name:	HIF1A-84
Applications:	FC, IF
Recommended Dilution:	**ELISA:** For coating, order Ab without BSA. **Flow Cytometry:** 0.5-1 µg/million cells. **Immunofluorescence:** 0.5-1 µg/ml. **Functional Studies:** Use Antibody without BSA and Azide. ***Positive Control***: Cobalt chloride treated HeLa cells. Breast or bladder carcinomas.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Recombinant Human HIF1 alpha protein.
Specificity:	This Antibody reognizes HIF1 alpha. ***Cellular Localization***: Nuclear and cytoplasmic.
Formulation:	10mM PBS State: Purified State: Liquid purified IgG fraction from Bioreactor Concentrate Stabilizer: 0.05% BSA Preservative: 0.05% Sodium Azide
Concentration:	lot specific
Purification:	Protein A/G Chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	92-110 kDa
Gene Name:	hypoxia inducible factor 1 alpha subunit

View online »

Database Link: Entrez Gene 3091 Human
Q16665

Background: HIF1 (hypoxia-inducible factor 1), a heterodimeric transcription factor complex central to cellular response to hypoxia, consists of two subunits (HIF-1 alpha and HIF-1 beta) which are basic helix-loop-helix proteins of the PAS (Per, ARNT, Sim) family. Expression of HIF-1 alpha protein is regulated by cellular oxygen level alterations as well as in oxygen-independent manner via different cytokines (through the PI3K-AKT-mTOR pathway), growth factors, oncogenic activation, or loss of tumor suppressor function etc. In normoxic cells, HIF-1 alpha is proline hydroxylated leading to a conformational change that promotes its binding to the VLH (von Hippel Lindau) protein E3 ligase complex; ubiquitination and followed by rapid proteasomal degradation. Hypoxia as well as chemical hydroxylase inhibitors (desferrioxamine, cobalt etc.) inhibit HIF-1 alpha degradation and lead to its accumulation in the cells, whereas, contrastingly, HIF-1 beta/ARNT (AhR nuclear translocator) remains stable under both conditions. Besides their critical role in hypoxic response, HIF1s regulates the transcription of genes responsible for angiogenesis, erythropoiesis/iron-metabolism, glucose metabolism, cell proliferation/survival, adipogenesis, carotid body formation, B lymphocyte development and immune reactions.

Synonyms: HIF-1 alpha, Hypoxia-inducible factor 1 alpha, ARNT-interacting protein, Member of PAS protein 1, Basic-helix-loop-helix-PAS protein MOP1, BHLHE78