

Product datasheet for **TA336765**

HIF-1 alpha (HIF1A) Rabbit Polyclonal Antibody [Clone ID: exon 12]

Product data:

Product Type:	Primary Antibodies
Clone Name:	exon 12
Applications:	WB
Recommended Dilution:	Western Blot: 1.0 ug/mL
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide made to an internal portion of the human HIF-1 alpha protein (within residues 550-600). [Swiss-Prot# Q16665]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity 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_851397 Entrez Gene 3091 Human Q16665



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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 VHL (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:

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

Note:

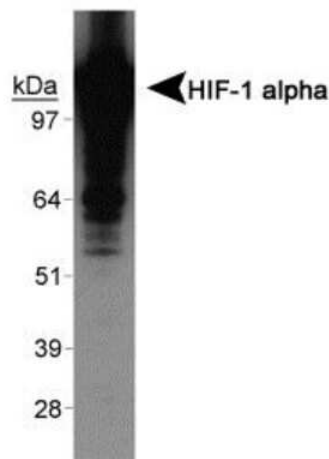
This HIF-1 alpha antibody is useful Western blot, where it was tested against the full length recombinant protein.

Protein Families:

Transcription Factors

Protein Pathways:

mTOR signaling pathway, Pathways in cancer, Renal cell carcinoma

Product images:

Western Blot: HIF-1 alpha Antibody - Exon 12
TA336765 - Human recombinant HIF-1 alpha
protein.