

Recombinant Human HIF1A, His-tagged

Cat. No. HIF1A-29317TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to the N terminal activation domain, amino acids 530-698, of Human HIF1 alpha with a His tag, Predicted MWt 19 kDa.
Species	Human
Source	E.coli
Description	This gene encodes the alpha subunit of transcription factor hypoxia-inducible factor-1 (HIF-1), which is a heterodimer composed of an alpha and a beta subunit. HIF-1 functions as a master regulator of cellular and systemic homeostatic response to hypoxia by activating transcription of many genes, including those involved in energy metabolism, angiogenesis, apoptosis, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. HIF-1 thus plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene.
Conjugation	HIS
Tissue specificity	Expressed in most tissues with highest levels in kidney and heart. Overexpressed in the majority of common human cancers and their metastases, due to the presence of intratumoral hypoxia and as a result of mutations in genes encoding oncoproteins and tumor
Form	Liquid

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Purity	>95% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 20% Glycerol, 20mM Tris HCl, 100mM Potassium chloride, 1mM DTT, 0.2mM EDTA, pH 8.0
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Contains 1 basic helix-loop-helix (bHLH) domain. Contains 1 PAC (PAS-associated C-terminal) domain. Contains 2 PAS (PER-ARNT-SIM) domains.

GENE INFORMATION

Gene Name	HIF1A hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) [Homo sapiens]
Official Symbol	HIF1A
Synonyms	HIF1A; hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor); hypoxia-inducible factor 1-alpha; bHLHe78; HIF 1alpha; HIF1; MOP1; PASD8;
Gene ID	3091
mRNA Refseq	NM_001243084
Protein Refseq	NP_001230013
MIM	603348
Uniprot ID	Q16665

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Chromosome Location	14q23.2
Pathway	Adipogenesis, organism-specific biosystem; Angiogenesis, organism-specific biosystem; HIF-1-alpha transcription factor network, organism-specific biosystem; Hypoxic and oxygen homeostasis regulation of HIF-1-alpha, organism-specific biosystem; Notch-mediated HES/HEY network, organism-specific biosystem;
Function	Hsp90 protein binding; histone acetyltransferase binding; histone deacetylase binding; protein binding; protein heterodimerization activity;

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