

Recombinant Human HIF1A

Cat. No. HIF1A-136H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) produced in <i>E. Coli</i> is a single, non-glycosylated polypeptide chain. The protein contains 298(530-826) amino acids and has a molecular mass of 32.8 kDa. The protein migrates as a 40 kDa band on SDS-PAGE. The HIF1-A is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Protein Length	530-826 a.a.
Description	Hypoxia-inducible factor-1 (HIF-1), identified as one of the transcription factors, has been found to play an essential role in oxygen homeostasis. HIF-1 is a heterodimer composed of HIF-1β subunit and one of three subunits(Hif-1α, Hif-2(or Hif-3)). The activation of Hif-1(is closely associated with a variety of tumors and oncogenic pathways. Hif-1(consists of DNA binding domain(DBD domain), Dimerization domain and C-termina regulatory domains, including two transactivation domains(TAD), an oxygen-dependent degradation(ODD) domain, and inhibitory domains.
Amino Acid Sequence	MEFKLELVEK LFAEDTEAKN PFSTQD TDLD LEM LAPIYIPM DDDFQLRSFD QLSPLESSSA SPESASPQST VTVFQQTQIQ EPTANATTTT ATTDELKTVT KDRMEDIKIL IASPSPTIH KETTSATSSP YRDTQSRTAS PNRAGKGVIE QTEKSHPRSP NVLSVALSQR TTVPEEELNP KILALQNAQR KRKMEHDGSL

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FQAVGIGTLL QQPDDHAATT SLSWKRVKGC KSSEQNGMEQ KTIILIPSDL
ACRLLGQSM D ESGLPQLTSY DCEVNAPIQG SRNLLQGEEL LRALDQVN.

Physical Appearance Sterile filtered liquid formulation 1mg/ml.

Formulation The HIF1A recombinant Human solution is formulated 20mM Tris pH-7.5 and 1mM DTT.

Purity Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Stability Recombinant Human MOP1 although stable at 4°C for 30 days, should be stored desiccated below -20°C for periods greater than 30 days. Please avoid freeze-thaw cycles.

GENE INFORMATION

Gene Name HIF1A hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) [Homo sapiens]

Synonyms HIF1A; hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor); HIF1; MOP1; PASD8; bHLHe78; HIF-1alpha; HIF1-ALPHA; Hypoxia-inducible factor 1 alpha;HIF1 alpha; ARNT-interacting protein; Member of PAS protein 1; Basic-helix-loop-helix-PAS protein; ARNT interacting protein; hypoxia-inducible factor 1 alpha isoform I.3; member of PAS superfamily 1; hypoxia-inducible factor 1, alpha subunit

Gene ID 3091

mRNA Refseq NM_001530

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Protein Refseq	NP_001521
MIM	603348
UniProt ID	Q16665
Chromosome Location	14q21-q24
Pathway	Pathways in cancer; Renal cell carcinoma; mTOR signaling pathway
Function	Hsp90 protein binding; RNA polymerase II transcription factor activity, enhancer binding; histone acetyltransferase binding; protein heterodimerization activity; sequence-specific DNA binding; signal transducer activity; transcription factor binding
PDB rendering based on 1h2k.	