

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 *E. Coli* 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-1 β subunit and one of three subunits(Hif-1 α , 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 PFSTQDTDLD LEMLPYIPM DDDFQLRSFD
 QLSPLESSSA SPESASPQST VTVFQQTQIQ EPTANATTTT ATTDDELKTVT
 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](#)

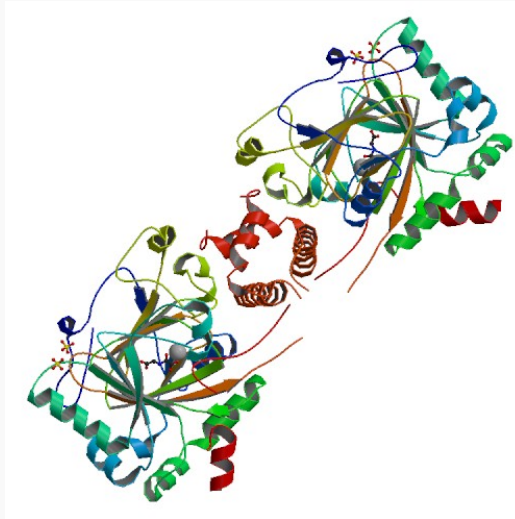
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Protein Refseq	NP_001521
MIM	603348
UniProt ID	Q16665
Chromosome Location	14q21-q24
Pathway	Pathways in cancer; Renal cell carcinoma; mTOR signaling pathway
Function	Hsp90 protein binding; RNA polymerase II transcription factor activity, enhancer binding;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

PDB rendering based on 1h2k.



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