

□ Cat # RP-917 Recombinant Human Hypoxia-Inducible Factor-1 Alpha **Size:** □ 10 ug

Hypoxia-inducible factor-1 (HIF-1), identified as one of the transcription factors, has been found to play an essential role in cellular and systemic oxygen homeostasis. HIF-1 is a heterodimer composed of HIF-1 α subunit and one of three subunits (Hif-1 β , 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-terminal regulatory domains, including two transactivation domains (TAD), an oxygen-dependent degradation (ODD) domain, and inhibitory domains. Under hypoxic conditions HIF1A activates the transcription of more than 40 genes, including, erythropoietin, glucose transporters, glycolytic enzymes, VEGF, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. HIF-1A also plays a crucial role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease.

SOURCE:

HIF1A Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 298 amino acids (530-826) and having a molecular mass of 32.8 Dalton. The protein migrates as a 40kDa band on SDS-PAGE. The HIF1A recombinant Human solution is formulated 20mM Tris-HCl pH-7.5 and 1mM DTT.

APPLICATION AND SUGGESTED DILUTIONS:

Greater than 95.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

STORAGE & STABILITY:

MOP1 Recombinant Human although stable at 4°C for 30 days, should be stored desiccated below -20°C for periods greater than 30 days. If supplied in powder then reconstitute it in 100ul water for 1mg/mL stock and store in liquied at 4oC for ~ 1week or aliquots in suitable size and store at -20oC for long term storage.

USAGE:

This item is for LABORATORY RESEARCH USE ONLY.

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