
Product Data Sheet

Product Name: HIF1AN Human

Cat. No.: GP23641

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.

Synonyms FIH1; FIH-1; HIF1AN; Factor Inhibiting HIF1A; Hypoxia-inducible factor 1-alpha inhibitor; Hypoxia-inducible factor asparagine hydroxylase; Factor inhibiting HIF-1; FLJ20615; FLJ22027; DKFZp762F1811.

Amino Acid Sequence
 MAATAAEAVA SGSSEPREEA GALGPAWDES QLRSYSFPTR PIPRLSQSDP
 RAEELIENEE PVVLTDTNLV YPALKWDLEY LQENIGNGDF SVYSASTHKF
 LYYDEKKMAN FQNFKPRSNR EEMKFHEFVE KLQDIQQRGG EERLYLQQTL
 NDTVGRKIVM DFLGFNWNWI NKQQGKRGWG QLTSNLLIG MEGNVTPAHY
 DEQQNFFAQI KGYKRCILFP PDQFECLYPY PVHHPCDRQS QVDFDNPDIYE
 RFPNFQNVVG YETVVGPGDV LYIPMYWWHH IESLLNGGIT ITVNFYWKGA
 PTPKRIEYPL KAHQKVAIMR NIEKMLGEAL GNPQEVGPLL NTMIKGRYN.

Formulation The protein solution (1mg/ml) contains 20mM Tris-HCl pH-8.

Introduction

Overexpression of the HIF1AN is linked with tumor aggressiveness in pancreatic endocrine tumors. HIF1AN hydroxylates Notch ICD at two residues that are crucial for the function of Notch ICD as a transactivator within cells and during neurogenesis and myogenesis. HIF1AN is commonly expressed in invasive breast carcinoma. The hypoxic response and survival recommends that tumour regulation of HIF1AN is an additional important mechanism for HIF pathway activation. HIF1AN is an asparaginyl hydroxylase enzyme that controls the transcriptional activity of hypoxia-inducible factor. FIH1 is a part of the Fe²⁺ and 2-oxoglutarate-dependent dioxygenase superfamily, FIH1 is protein that hydroxylates a specific asparagine residue (Asn-803) within the HIF1A C-terminal transactivation domain. In normoxia, the HIF1AN-mediated hydroxylation of the HIF1? transactivation domain which results in blockage of the HIF1A-p300/CBP interaction and represses transcriptional activity of HIF1A targeted genes.

Caution: Product has not been fully validated for medical applications. For research use only.

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Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

HIF1AN Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 349 amino acids and having a molecular mass of 40.2 kDa. The HIF1AN is purified by proprietary chromatographic techniques.

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