

## HIF-1 $\alpha$ rabbit-FC recombinant protein

<b>Catalog No :</b>	YD3123
<b>Reactivity :</b>	Human;
<b>Purity :</b>	>90% as determined by SDS-PAGE
<b>Gene Name :</b>	HIF-1 $\alpha$
<b>Protein Name :</b>	HIF-1 $\alpha$
<b>Sequence :</b>	Amino acid:646-826,with rabbit FC tag.
<b>Human Gene Id :</b>	3091
<b>Human Swiss Prot No :</b>	Q16665
<b>Formulation :</b>	Phosphate-buffered solution
<b>Source :</b>	Mammalian cells
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Avoid freeze / thaw cycles)
<b>Background :</b>	<p>hypoxia inducible factor 1 alpha subunit(HIF1A) Homo sapiens 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. [provided by RefSeq, Jul 2011],</p>
<b>Function :</b>	<p>domain:Contains two independent C-terminal transactivation domains, NTAD and CTAD, which function synergistically. Their transcriptional activity is repressed by an intervening inhibitory domain (ID).,function:Functions as a master transcriptional regulator of the adaptive response to hypoxia. Under hypoxic conditions activates the transcription of over 40 genes, including, erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial</p>

growth factor, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease. Binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia response element (HRE) of target gene promoters. Activation requires recruitment of transcriptional coactivators such as CREBPB and EP300. Acti

---

**Subcellular Location :**

Cytoplasm . Nucleus . Nucleus speckle . Colocalizes with HIF3A in the nucleus and speckles (By similarity). Cytoplasmic in normoxia, nuclear translocation in response to hypoxia (PubMed:9822602). .

---

**Expression :**

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 suppressors. A higher level expression seen in pituitary tumors as compared to the pituitary gland.

---

## Products Images