

RPCB2133

Product Information

Product SKU:	RPCB2133	Gene ID:	3091	Size:	100µg
Tag:	N-His	Reactivity:	Human		

Additional Information

Expression Host:	E. coli	Swissprot:	Q16665-1
Purity:	> 95% by SDS-PAGE.		

Protein Information

Background: HIF-1 alpha, also known as HIF1A, contains 1 basic helix-loop-helix (bHLH) domain, 1 PAC (PAS-associated C-terminal) domain, and 2 PAS (PER-ARNT-SIM) domains. It is one of the two subunits of Hypoxia-inducible factor-1 (HIF1). HIF1 is a transcription factor found in mammalian cells cultured under reduced oxygen tension that plays an essential role in cellular and systemic homeostatic responses to hypoxia. HIF1 is a heterodimer composed of an alpha subunit and a beta subunit. The beta subunit has been identified as the aryl hydrocarbon receptor nuclear translocator (ARNT). HIF-1 alpha is expressed in most tissues with the highest levels in the kidney and heart. It is 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. HIF-1 alpha functions as a master transcriptional regulator of the adaptive response to hypoxia. Under hypoxic conditions, it activates the transcription of over 40 genes, including erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, HILPDA, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. HIF1A plays an essential role in embryonic vascularization, tumor angiogenesis, and the pathophysiology of ischemic disease. HIF-1 alpha binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia response

Contact Details | Dublin, Ireland

Email: techsupport@assaygenie.com | **Web:** www.assaygenie.com

Copyright © 2024 Assay Genie Ltd, All Rights Reserved. All information / detail is correct at time of going to print.

element (HRE) of target gene promoters. Activation requires the recruitment of transcriptional coactivators such as CREBPB and EP300.

- Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Human HIF-1 alpha Protein , tested reactivity in E. coli and has been validated in SDS-PAGE. 100% guaranteed.
- Endotoxin:** Please contact us for more information.
- Formulation:** Lyophilized from a 0.22 µm filtered solution of 50mM Tris, 100mM NaCl, 1mM EDTA, pH 8.0. Contact us for customized product form or formulation.
- Storage:** Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.