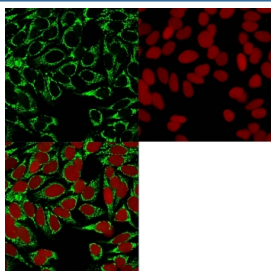


## HIF1 alpha Antibody [clone HIF1A-84] (V2132)

Catalog No.	Formulation	Size
V2132-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2132-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2132SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

[Bulk quote request](#)

<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG2b, kappa
<b>Clone Name</b>	HIF1A-84
<b>Purity</b>	Protein G purified antibody
<b>Buffer</b>	1X PBS, pH 7.4
<b>Gene ID</b>	3091
<b>Localization</b>	Nuclear, possible cytoplasmic
<b>Applications</b>	Flow Cytometry : 0.5-1ug/10 <sup>6</sup> cells Immunofluorescence : 0.5-1ug/ml
<b>Limitations</b>	This <b>HIF1 alpha antibody</b> is available for research use only.



Immunofluorescent staining of methanol-fixed human HeLa cells with HIF1 alpha antibody (green) and Reddot nuclear stain (red).

## Description

HIF1 (hypoxia-inducible factor 1), a heterodimeric transcription factor complex central to cellular response to hypoxia,

consists of two subunits (alpha and beta) which are basic helix-loop-helix proteins of the PAS (Per, ARNT, Sim) family. Expression of HIF-1 alpha is regulated by cellular oxygen level alterations as well as in oxygen-independent manner via different cytokines (through the PI3K-AKT-mTOR pathway), growth factors, oncogenic activation, or loss of tumor suppressor function etc. In normoxic cells, HIF-1 alpha is proline hydroxylated leading to a conformational change that promotes its binding to the VHL (von Hippel Lindau) protein E3 ligase complex; ubiquitination and followed by rapid proteasomal degradation. Hypoxia as well as chemical hydroxylase inhibitors (desferrioxamine, cobalt etc.) inhibit HIF-1 alpha degradation and lead to its accumulation in the cells, whereas, contrastingly, HIF-1 beta/ARNT (AhR nuclear translocator) remains stable under both conditions. Besides their critical role in hypoxic response, HIFs regulates the transcription of genes responsible for angiogenesis, erythropoiesis/iron-metabolism, glucose metabolism, cell proliferation/survival, adipogenesis, carotid body formation, B lymphocyte development and immune reactions.

## Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the HIF1 alpha antibody to be titered up or down for optimal performance.

## Immunogen

Recombinant human HIF1 alpha was used as the immunogen for this antibody.

## Storage

Store the HIF1 alpha antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

Hypoxia inducible factor 1 alpha; ARNT-interacting protein; Basic-helix-loop-helix-PAS protein MOP1; Class E basic helix-loop-helix protein 78 (bHLHe78); Member of PAS superfamily 1 (MOP1); PAS domain-containing protein 8 (PASD8), HIF1 alpha antibody

## References (2)