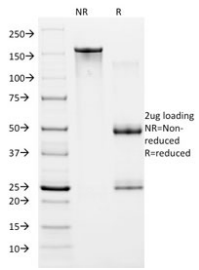
HIF1 alpha Antibody / HIF1A [clone ESEE122] (V7842)

Catalog No.	Formulation	Size
V7842-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7842-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7842SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	ESEE122
Purity	Protein G affinity chromatography
UniProt	Q16665
Applications	Immunofluorescence : 1-2ug/ml
Limitations	This HIF1 alpha antibody is available for research use only.



SDS-PAGE analysis of purified, BSA-free HIF1 alpha antibody (clone ESEE122) as confirmation of integrity and purity.

Description

HIF1 (hypoxia-inducible factor 1), a heterodimeric transcription factor complex central to cellular response to hypoxia, consists of two subunits (HIF-1 alpha and HIF-1 beta) which are basic helix-loop-helix proteins of the PAS (Per, ARNT,

Sim) family. Expression of HIF-1 alpha protein 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 VLH (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, HIF1s 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

Optimal dilution of the HIF1 alpha antibody should be determined by the researcher.

Immunogen

A GST-human HIF-1A (amino acids 329-530) fusion protein was used as the immunogen for the HIF1 alpha antibody.

Storage

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

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