HIF1 alpha (Hypoxia-Inducible Factor 1-alpha) Antibody

Mouse Monoclonal Antibody [Clone ESEE122]

Catalog No	Format	Size
3091-MSM2-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
3091-MSM2-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
3091-MSM2-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

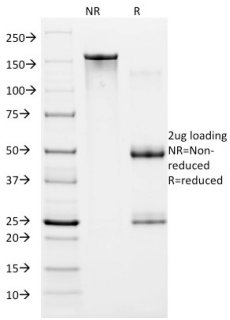
Applications	Tested Dillution	Note
Flow Cytometry (Flow)	1-2ug/million cells	
Immunofluorescence (IF)	1-3ug/ml	

Product Details

Clone	ESEE122
Gene Name	HIF1A
Immunogen	GST-human HIF-1A amino acids 329-530 fusion protein
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG1 / Kappa
Mol. Weight of Antigen	92-110kDa
Cellular Localization	Cytoplasm, Nucleus, Nucleus speckle
Species Reactivity	Cow, Dog, Human, Mouse, Rat
Positive Control	Breast or Bladder Carcinomas., Cobalt chloride treated HeLa cells. Colon, Renal

**Optimal dilution for a specific application should be determined.*

Product Images for HIF1 alpha (Hypoxia-Inducible Factor 1-alpha) Antibody



SDS-PAGE Analysis of Purified HIF1 alpha Mouse Monoclonal Antibody (ESEE122).
Confirmation of Purity and Integrity of Antibody.

Specificity & Comments

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.

Supplied As

200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Research Areas

Angiogenesis, Cardiovascular, Cytokine Signaling, Immunology, Nuclear Marker, Signal Transduction

Limitations and Warranty