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36-2470: Anti-HIF1 alpha (Hypoxia-Inducible Factor 1-alpha) Monoclonal Antibody(Clone: HIF1A/84)

Clonality :	Monoclonal
Clone Name :	HIF1A/84
Application :	FACS,IF
Reactivity :	Human
Gene :	HIF1A
Gene ID :	3091
Uniprot ID :	Q16665
Alternative Name :	ARNT-interacting protein; Basic-helix-loop-helix-PAS protein MOP1; Class E basic helix-loop-helix protein 78 (bHLHe78); Hypoxia inducible factor 1 alpha; Member of PAS superfamily 1 (MOP1); PAS domain-containing protein 8 (PASD8)
Isotype :	Mouse IgG2b, kappa
Immunogen Information :	Recombinant human HIF1 alpha protein

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 (throÂµgh 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.

Product Info

Amount :	20 µg / 100 µg
Content :	200 µg/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 condition :	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.

Application Note

Flow Cytometry (1-2ug/million cells); Immunofluorescence (1-2ug/ml);

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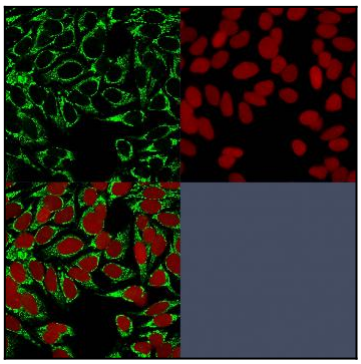

Fig. 1: Immunofluorescence Analysis of MeOH-fixed HeLa cells labeled with HIF1 alpha Mouse Monoclonal Antibody (HIF1A/84) followed bygoat anti-mouse IgG-CF488 (Green). The nuclear counterstain is Reddot (Red).