HIF-1 alpha Monoclonal Antibody (Mgc3), APC, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Mouse
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), APC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	Mgc3
Conjugate	APC
Excitation/Emission Max	651/660 nm
Immunogen	Human HIF-1 alpha amino acids 530-826.
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2802231

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1.0 µg/test	2 Publications

Product Specific Information

Description: This Mgc3 monoclonal antibody detects hypoxia-inducible factor 1 alpha (HIF-1 alpha) from human, non-human primate, bovine, mouse and porcine cells. This antibody does not cross-react with ARNT or the related HIF-2 alpha.

Mgc3 has been successfully used in western blotting, immunofluorescence, immunocytochemistry, immunoprecipitation, flow cytometry and gel shift procedures. By western blot, this antibody detects a ~93 kDa protein representing HIF-1 alpha after hypoxic induction in COS cells. Immunofluorescence staining of HIF-1 alpha in COS-7 cells with clone Mgc3 yields nuclear staining after exposing cells to 1% oxygen for 4 hours. In gel shift assay experiments, the Mgc3 antibody detected only mouse and not human HIF-1 alpha.

Other anti-HIF1 alpha antibodies were previously included in a Thermo Scientific Cellomics High Content Screening Kit. Clone Mgc3 is now recommended as a replacement. It has been thoroughly tested and validated for cellular immunofluorescence (IF) applications. High content assays may require further optimization, including the selection of the optimal Dylight-conjugated secondary antibody.

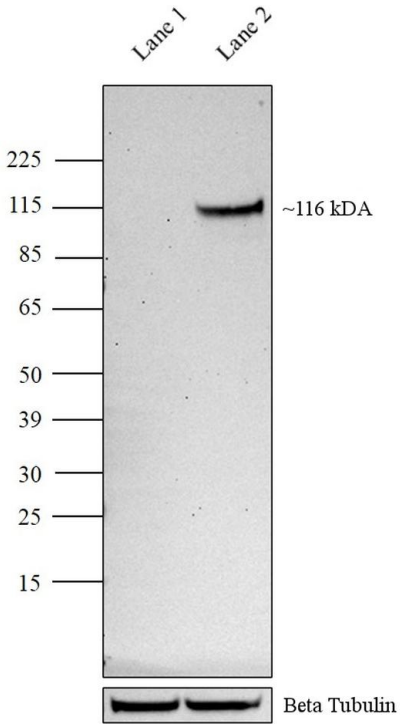
Applications Reported: This Mgc3 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This Mgc3 antibody has been tested by flow cytometric analysis of DFOA stimulated HeLa cells using the methanol fixation protocol. This may be used at less than or equal to 1.0 µg/mL per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range

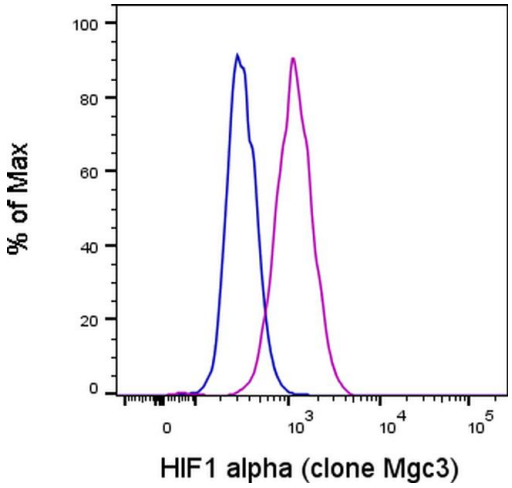
from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 633-647 nm; Emission: 660 nm; Laser: Red Laser

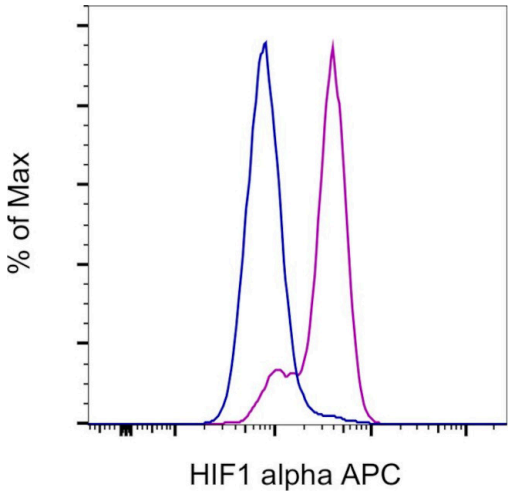
Product Images For HIF-1 alpha Monoclonal Antibody (Mgc3), APC, eBioscience™



HIF-1 alpha Antibody (17-7528-82)
Western blotting of unstimulated (Lane 1) and deferoxamine-stimulated (Lane 2) HeLa cells. As expected based on known expression patterns, staining with clone Mgc3 the intensity of the 116 kDa band is significantly increased in lysate of deferoxamine-stimulated HeLa cells. Details: Western Blot analysis was performed on whole cell extracts of HeLa cells (Lane 1), HeLa cells treated for 24 hours with 1000 µM Deferoxamine (DFOA) (Lane 2). The blot was probed with Anti-HIF1 alpha Monoclonal antibody clone Mgc3 (2 µg/mL)(MA1-516) and followed with anti-mouse IgG antibody, HRP conjugate at a 1: 10,000 dilution. It was subsequently detected using Super Signal West Pico PLUS Chemiluminescence Substrate. Protein size was determined using Spectra™ Multicolor Broad Range Protein Ladder (Product # 26634). {TM}



HIF-1 alpha Antibody (17-7528-82)
Staining of stimulated and unstimulated HeLa cells. As expected based on known expression patterns, staining with clone Mgc3 is significantly increased in HeLa cells after treatment with Deferoxamine (DFOA). Details: HeLa cells were either unstimulated (blue histogram) or stimulated for 24 hours with 1000 µM Deferoxamine (purple histogram). The cells were then fixed and permeabilized with 80% methanol, and intracellularly stained with clone Mgc3. Viable cells were used for analysis as determined by staining with Fixable Viability Dye eFluor 450 (Product # 65-0863-18). {TM}



HIF-1 alpha Antibody (17-7528-82) in Flow
HeLa cells were stimulated overnight with 500 µM Deferoxamine (DFOA). Cells were then fixed and permeabilized with 80% methanol, and intracellularly stained with 0.5 µg of Mouse IgG1 kappa Isotype Control, APC (Product # 17-4714-82) (blue histogram) or 0.5 µg of HIF1 alpha Monoclonal Antibody, APC (purple histogram). Total viable cells were used for analysis, as determined by Fixable Viability Dye eFluor 450 (Product # 65-0863-18).

View more figures on thermofisher.com

2 References

Flow Cytometry (2)

Nature communications

Microbiota-assisted iron uptake promotes immune tolerance in the intestine.

"Published figure using HIF-1 alpha monoclonal antibody (Product # 17-7528-82) in Flow Cytometry"

Authors: Zhu L,Li G,Liang Z,Qi T,Deng K,Yu J,Peng Y,Zheng J,Song Y,Chang X

Year
2023

Species
Mouse

Dilution
1:100

International journal of molecular sciences

Pulsed Electromagnetic Fields Stimulate HIF-1-Independent VEGF Release in 1321N1 Human Astrocytes Protecting Neuron-Like SH-SY5Y Cells from Oxygen-Glucose Deprivation.

"Published figure using HIF-1 alpha monoclonal antibody (Product # 17-7528-82) in Flow Cytometry"

Authors: Vincenzi F,Pasquini S,Setti S,Salati S,Cadossi R,Borea PA,Varani K

Year
2020