

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HIF-1 α in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG ₁ Clone # 2443B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human HIF-1 α Arg575-Asn826 Accession # Q16665.1
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS.

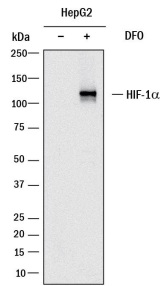
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the [Technical Information](#) section on our website.

	Recommended Concentration	Sample
Western Blot	2 μ g/mL	See Below
Immunocytochemistry	3-25 μ g/mL	See Below
Knockout Validated	HIF-1 α is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in HIF-1 α knockout HeLa cell line.	

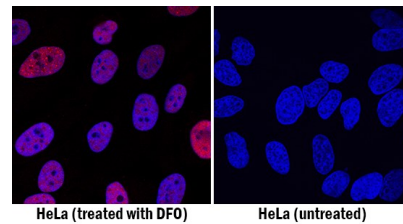
DATA

Western Blot



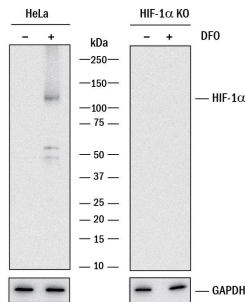
Detection of Human HIF-1 α by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line untreated (-) or treated (+) with 1 mM DFO for overnight. PVDF membrane was probed with 2 μ g/mL of Rabbit Anti-Human HIF-1 α Monoclonal Antibody (Catalog # MAB19351) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for HIF-1 α at approximately 120 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Immunocytochemistry



HIF-1 α in HeLa Human Cell Line. HIF-1 α was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line treated with DFO (left panel) or untreated (right panel) using Rabbit Anti-Human HIF-1 α Monoclonal Antibody (Catalog # MAB19351) at 3 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Knockout Validated



Western Blot Shows Human HIF-1 α Specificity by Using Knockout Cell Line. Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and HIF-1 α knockout HeLa cell line (KO) untreated (-) or treated (+) with 1 mM DFO for overnight. PVDF membrane was probed with 2 μ g/mL of Rabbit Anti-Human HIF-1 α Monoclonal Antibody (Catalog # MAB19351) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for HIF-1 α at approximately 120 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">• 12 months from date of receipt, -20 to -70 °C as supplied.• 1 month, 2 to 8 °C under sterile conditions after reconstitution.• 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The hypoxia-inducible transcription factor 1 α (HIF-1 α) is the regulated member of the transcription factor heterodimer HIF-1. HIF-1 binds to hypoxia-response elements (HREs) in the promoters of many genes involved in adapting to an environment of insufficient oxygen or hypoxia. Hypoxic tissue environments occur in vascular and pulmonary diseases as well as cancer, which illustrates the broad impact of gene regulation by HIF-1 α .