Human/Mouse/Rat HIF-1α Antibody

Monoclonal Mouse IgG_1 Clone # 241809

Catalog Number: MAB1536

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat HIF-1α.
Source	Monoclonal Mouse IgG_1 Clone # 241809
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human HIF-1α Arg575-Asn826 Accession # Q16665.1
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

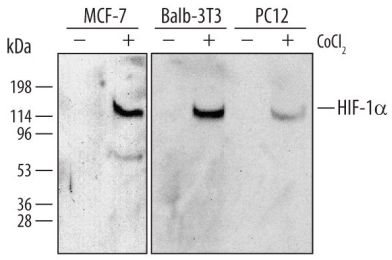
APPLICATIONS

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	1 µg/mL	See Below
Immunoprecipitation	1-3 µg/500 µg cell lysate	MCF-7 human breast cancer cell line treated with $CoCl_2$, see our available Western blot detection antibodies
Simple Western	1 µg/mL	See Below

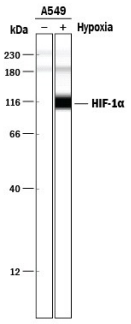
DATA

Western Blot



Detection of Human, Mouse, and Rat HIF-1α by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line, Balb-3T3 mouse embryonic fibroblast cell line, and PC-12 rat adrenal pheochromocytoma cell line untreated (-) or treated (+) with 150 µM $CoCl_2$ for 8 hours. PVDF membrane was probed with 1 µg/mL of Human/Mouse/Rat HIF-1α Monoclonal Antibody, followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for HIF-1α at approximately 120 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human HIF-1α by Simple Western™. Simple Western lane view shows lysates of A549 human lung carcinoma cell line untreated (-) or treated (+) with Hypoxia (1% O_2), loaded at 0.2 mg/mL. A specific band was detected for HIF-1α at approximately 116 kDa (as indicated) using 1 µg/mL of Mouse Anti-Human/Mouse/Rat HIF-1α Monoclonal Antibody (Catalog # MAB1536). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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.** ● 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 1α (HIF-1α) 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-1α.

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