

For Research Use Only

# HIF-1 alpha Monoclonal antibody

Catalog Number: 66730-1-Ig **41 Publications**



## Basic Information

**Catalog Number:**

66730-1-Ig

**Size:**

1000 µg/ml

**Source:**

Mouse

**Isotype:**

IgG1

**Immunogen Catalog Number:**

AG15198

**GenBank Accession Number:**

BC012527

**GeneID (NCBI):**

3091

**UNIPROT ID:**

Q16665

**Full Name:**

hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)

**Calculated MW:**

826 aa, 93 kDa

**Observed MW:**

120 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

1H3C12

**Recommended Dilutions:**

WB 1:2000-1:10000

## Applications

**Tested Applications:**

WB, ELISA

**Cited Applications:**

WB, IP, IHC, IF, ChIP

**Species Specificity:**

Human

**Cited Species:**

human

**Samples need to be treated with hypoxia stimulation.**

**Positive Controls:**

**WB:** HeLa cells, Cobalt Chloride treated HeLa cells, Cobalt Chloride treated HepG2 cells

## Background Information

HIF1a, the major regulator of the cellular responses to hypoxia, consists of an oxygen-sensitive subunit, HIF1 alpha (HIF1A), and an oxygen-insensitive subunit, HIF1 beta (arylhydrocarbon receptor nuclear transporter [ARNT]). Under normal oxygen conditions, HIF1a is continuously produced and destroyed, in a process involving hydroxylation, interaction with von Hippel-Lindau (VHL) protein, polyubiquitylation and subsequent proteasomal degradation. Under hypoxic conditions, hydroxylation is impaired and HIF1a is stabilized. HIF1a localizes in cytoplasm in normoxia, but it can translocate into nuclear in response to hypoxia. The calculated molecular weight of HIF1a is 93 kDa, but the modified protein HIF1a is about 110-120kDa (PMID: 11698256, PMID: 7539918).

## Notable Publications

Author	Pubmed ID	Journal	Application
Bin Zhang	32987196	Int J Biochem Cell Biol	WB
Jingjing Zheng	32978798	Ann N Y Acad Sci	WB
Wenjian Liu	34542841	Tissue Eng Regen Med	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

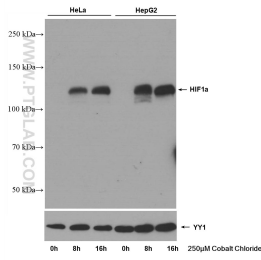
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## Selected Validation Data



Untreated and cobalt chloride treated HeLa and HepG2 cells were subjected to SDS-PAGE followed by western blot with 66730-1-Ig (HIF 1a antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with YY1 antibody as loading control.