

HIF-1 alpha antibody (pAb)

Catalog Nos: 39665, 39666

RRID: AB_2614934

Isotype: Serum

Application(s): ChIP, ChIP-Seq, WB

Reactivity: Human

Volumes: 100 µl, 10 µl

Purification: None

Host: Rabbit

Molecular Weight: 100 kDa

Background: Hypoxia-inducible factor-1 (HIF1) is a transcription factor involved in the regulation of oxygen homeostasis. It regulates the physiological responses to low oxygen levels (hypoxia) and the pathophysiology of heart attack, cancer, stroke and chronic lung disease. HIF-1 is a heterodimeric protein that consists of two subunits, HIF-1 alpha and HIF-1 beta (also known as ARNT1, the aryl hydrocarbon nuclear translocator). While HIF-1 beta is constitutively expressed, the expression of HIF-1 alpha is induced by oxygen concentrations below 6%. Heterodimerization is required to bind the hypoxia response element (HRE).

Immunogen: This HIF-1 alpha antibody was raised against a synthetic peptide corresponding to the C-terminal region of human HIF-1 alpha.

Buffer: Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:

Applications Validated by Active Motif:

ChIP: 5 µl per ChIP

ChIP-Seq: 5 µl per ChIP-Seq

WB: 1:500 - 1:1,000 dilution

The addition of 0.1% Tween 20 in the blocking buffer and primary antibody incubation buffer is recommended to aid in detection by Western blot. Individual optimization may be required.

ChIP-validated antibodies are available for this target: Catalog No. 39253.

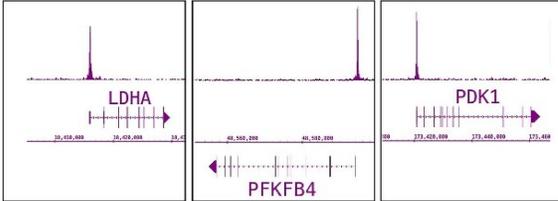
For HIF-1 alpha, we also offer AbFlex® HIF-1 alpha Recombinant Antibody (rAb). For details, see Catalog No. 91139.

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.

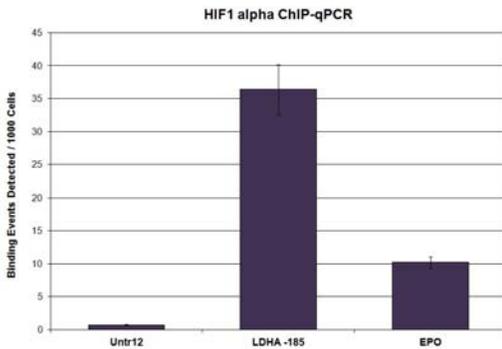
HIF-1 alpha antibody (pAb) tested by ChIP-Seq.

ChIP was performed using the ChIP-IT[®] High Sensitivity Kit (Cat. No. 53040) with 5 µl of HIF-1 alpha antibody and 25 µg of chromatin from hypoxic Huh7 cells. ChIP DNA was sequenced on the Illumina HiSeq and 19 million sequence tags were mapped to identify Hif-1 alpha binding sites across the genome. The images show binding in the promoters of Hif1a target genes that regulate metabolism.



HIF-1 alpha antibody (pAb) tested by ChIP.

ChIP was performed using the ChIP-IT[®] High Sensitivity Kit (Cat. No. 53040) with 5 µl of HIF-1 alpha antibody and 25 µg of chromatin from hypoxic Huh7 cells. ChIP DNA was used in qPCR with the control primer pairs or gene-specific primer pairs as indicated. Data are presented as Binding Events Detected per 1000 Cells using Active Motif's Epigenetic Services normalization scheme which accounts for primer efficiency and the amount of chromatin used in the ChIP reaction.



HIF-1 alpha antibody (pAb) tested by Western blot.

Detection of HIF-1 alpha by Western blot analysis with 20 µg COS-7 nuclear extract either untreated (lane 1) or treated with CoCl₂ (lane 2).

