

Catalog Number:	NB100-105SS
Background:	<p>Hypoxia contributes significantly to the pathophysiology of major categories of human disease, including myocardial and cerebral ischemia, cancer, pulmonary hypertension, congenital heart disease and chronic obstructive pulmonary disease.</p> <p>HIF-1 is a nuclear protein involved in mammalian oxygen homeostasis. This occurs as a post-translational modification by prolyl hydroxylation. HIF-1 is a heterodimer composed of HIF-1 alpha and HIF-1 beta subunits. Both subunits are constantly translated. However, under normoxic conditions, human HIF-1 alpha is hydroxylated at Pro402 or Pro564 by a set of HIF prolyl hydroxylases, is polyubiquitinated, and eventually degraded in proteosomes. Under hypoxic conditions, the lack of hydroxylation prevents HIF degradation and increases transcriptional activity. Therefore, the concentration of HIF-1 alpha increases in the cell. In contrast, HIF-1 beta remains stable under either condition. HIF hydroxylases provide insight into hypoxic cell responses, which may be used to help isolate therapeutic targets.</p>
Alternate Names:	anti-Hypoxia-inducible factor 1 alpha antibody, anti-HIF1 alpha antibody, anti-ARNT interacting protein antibody, anti-Hif1a antibody, anti-ARNT interacting protein antibody, anti-HIF-1alpha antibody, anti-Hypoxia inducible factor 1 alpha antibody, anti-Hypoxia inducible factor 1 alpha subunit basic helix antibody
Research Areas:	10,348,0
Immunogen:	A fusion protein containing residues 432-528 of human HIF-1 alpha.
Clone:	H1alpha67
Isotype:	IgG2b
Localization:	Nuclear
Species Reactivity:	Human, monkey, sheep, mouse, rat, rabbit, pig, bovine and ferret HIF-1alpha. Other species have not been tested.
Uses:	<p>By Western blot, this antibody recognizes bands at 120 kDa representing HIF-1 alpha in induced tissues and cells. Multiple bands may be seen at 120 kDa representing post-translational modification of HIF-1 alpha. This antibody has also been used to immunoprecipitate human HIF-1 alpha.</p> <p>* Other applications have not been tested.</p>
Dilutions:	<p>Suggested working dilutions *</p> <p>chromatin immunoprecipitation ,</p> <p>immunohistochemistry 1:25,</p> <p>immunofluorescence ,</p> <p>immunoprecipitation Assay dependent,</p> <p>Western Blot 1:500,</p> <p>Immunohistochemistry-Frozen 1:100,</p> <p>* Investigator should determine optimal working dilutions.</p>
Positive Controls:	Nuclear extracts are recommended. COS-7 treated and untreated nuclear extracts for

positive / nega

Packaging: 0.025 ml protein G purified Mouse ascites.

Concentration: 4.0 mg/ml

Buffer: PBS

Preservative: 0.05% sodium azide

Storage: Store at 4C. Do not freeze.

Notes: * The mobility of HIF-1 alpha induced by desferrioxamine or cobalt chloride treatment differs from the mobility of the hypoxia-induced protein. The reason is not known.

Lot W is 4.0 mg/ml

Lot X is 4.0 mg/ml

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Gene Id: 3091

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