



## **HIF-1 $\alpha$ . Mouse, Clone OZ12 Monoclonal Antibody, Human**

### **BACKGROUND**

Recognizes a 120kDa protein, identified as the alpha subunit of hypoxia-inducible factor-1 (HIF-1). HIF-1 is a heterodimer consisting of an alpha and a beta subunit, both belonging to the basic-helix-loop-helix Per-aryl hydrocarbon receptor nuclear translocator-Sim (PAS) family of transcription factors. HIF-1 is a key component of a widely operative transcriptional response activated by hypoxia, cobaltous ions, and iron chelation. HIF-1 activates transcription of hypoxia-inducible genes, including those encoding: erythropoietin, vascular endothelial growth (VEGF), heme oxygenase-1, inducible nitric oxide synthase, and the glycolytic enzymes aldolase A, enolase 1, lactate dehydrogenase A, phosphofructokinase I, and phosphoglycerate kinase 1. The C-terminal of HIF-1 alpha binds to p300. p300/CBP-HIF complexes participate in the induction of hypoxia-responsive genes, including VEGF.

### **ORDERING INFORMATION**

**CATALOG NUMBER**  
X1375M

**SIZE**  
100  $\mu$ g

**FORM**  
Purified

**HOST/CLONE**  
Mouse, Clone OZ12

**FORMULATION**  
Provided as solution in phosphate buffered saline with 0.08% sodium azide

**CONCENTRATION**  
1 mg/ml

**ISOTYPE**  
IgG1

**APPLICATIONS**  
Gel Shift  
Immunofluorescence  
Immunoprecipitation

### **IMMUNOGEN**

Hybridoma produced by the fusion of RBF/DnJ splenocytes immunized with human HIF-1 (amino acids 530-826) protein and mouse myeloma NS1 cells.

### **SPECIES REACTIVITY**

Human

### **COMMENTS**

This antibody can be used for gel supershift (1 mg/ml), immunofluorescence and immunoprecipitation (2  $\mu$ g/mg of protein lysate). Optimal concentration should be evaluated by serial dilutions. This antibody is not suitable for Western blotting.

### **STORAGE CUSTOMER**

Product should be stored at -20 degrees C. Aliquot to avoid freeze/thaw cycles

### **STABILITY**

Products are stable for one year from purchase when stored properly

**POSITIVE CONTROL**

Mammalian cells cultured under reduced O<sub>2</sub> tension

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**REFERENCES**

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3. Huang LE; et al. Erythropoietin gene regulation depends on heme-dependent oxygen sensing and assembly of interacting transcription factors. *Kidney International*, 1997 Feb, 51(2):548-52.
4. Jelkmann W; et al. Effects of antioxidant vitamins on renal and hepatic erythropoietin production. *Kidney International*, 1997 Feb, 51(2):497-501.
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