

**HIF1 alpha Antibody**  
HIF 1 alpha Antibody, Clone ESEE122  
Catalog # ASM10128

**Specification**

**HIF1 alpha Antibody - Product Information**

Application **IHC, WB**  
Primary Accession [O61221](#)  
Other Accession [NP\\_034561.2](#)  
Host **Mouse**  
Isotype **IgG1**  
Reactivity **Human, Mouse, Rat, Bovine**  
Clonality **Monoclonal**

**Description**

Mouse Anti-Mouse HIF1 alpha Monoclonal IgG1

**Target/Specificity**

Detects ~116kDa. Specific for HIF1Alpha.

**Other Names**

ARNT interacting protein Antibody, HIF1A Antibody, Hypoxia inducible factor 1 alpha Antibody, MOP1 Antibody, PASD8 Antibody

**Immunogen**

Recombinant fragment corresponding to amino acids 329-530

**Purification**

Protein G Purified

Storage **-20°C**

**Storage Buffer**

PBS pH7.4, 50% glycerol, 0.09% sodium azide

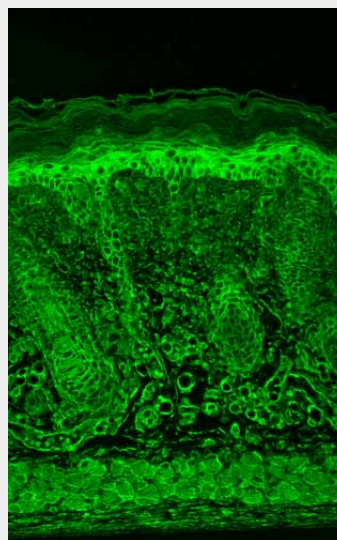
Shipping **Blue Ice or 4°C**  
Temperature

**Certificate of Analysis**

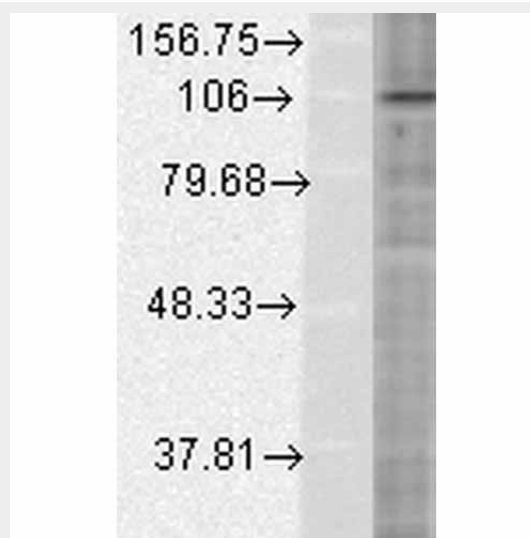
1 µg/ml of SMC-184 was sufficient for detection of HIF1α in 20 µg of CoCl<sub>2</sub>-induced Hela cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

Cytoplasm | Nucleus



Immunohistochemistry analysis using Mouse Anti-HIF1 alpha Monoclonal Antibody, Clone ESEE122 (ASM10128). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-HIF1 alpha Monoclonal Antibody (ASM10128) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Membranous and cytoplasmic localization in the epidermis, positive hair follicles, muscle and dermis. .



## HIF1 alpha Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Western Blot analysis of Human HeLa cell lysates showing detection of HIF1 alpha protein using Mouse Anti-HIF1 alpha Monoclonal Antibody, Clone ESEE122 (ASM10128). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-HIF1 alpha Monoclonal Antibody (ASM10128) at 1:500 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

## HIF1 alpha Antibody - Background

Hypoxia-inducible factor 1 (HIF1) is a heterodimeric transcription factor that plays a critical role in the cellular response of hypoxia (1). The HIF1 complex consists of two subunits, HIF1-Alpha and HIF1-Beta, which are basic helix-loop-helix proteins of the PAS family (2). HIF1 regulates the transcription of a broad range of genes that facilitate responses to the hypoxic environment, including genes regulating angiogenesis, erythropoiesis, cell cycle, metabolism and apoptosis. The widely expressed HIF-1 $\alpha$  is typically degraded rapidly in normoxic cells by the ubiquitin/proteasomal pathway. Under normoxic conditions, HIF-1 $\alpha$  is proline hydroxylated leading to a conformational change that promotes binding to the von Hippel Lindau protein (VHL) E3 ligase complex; ubiquitination and proteasomal degradation follows (3, 4). Both hypoxic conditions and chemical hydroxylase inhibitors (such as desferrioxamine and cobalt) inhibit HIF-1 $\alpha$  degradation and lead to its stabilization. In addition, HIF-1 $\alpha$  can be induced in an oxygen-independent manner by various cytokines through the PI3K-AKT-mTOR pathway (5-7).

## HIF1 alpha Antibody - References

1. Sharp F.R. and Bernaudin M. (2004) Nat Rev Neurosci 5: 437-48.
2. Wang G.L., et al. (1995) Proc Natl Acad Sci U S A 92: 5510-4.
3. Jaakkola P., et al. (2001) Science 292: 468-72.
4. Maxwell P.H., et al. (1999) Nature 399: 271-5.
5. Fukuda R., et al. (2002) J Biol Chem 277: 38205-11.
6. Jiang B.H., et al. (2001) Cell Growth Differ 12: 363-9.

7. Laughner E., et al. (2001) Mol Cell Biol 21:  
3995-4004.