



Product Information Sheet

Polyclonal Anti-Hypoxia-inducible factor-1 α , *HIF-1 α*

Catalogue No. PA1041

Lot No. 02J01

Ig type: rabbit IgG

Size: 100 μ g/vial

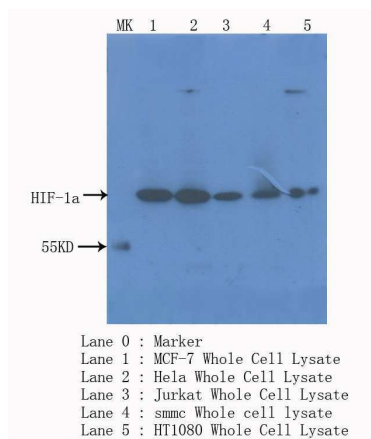
Specificity

Human, mouse, rat.

No cross reactivity with other proteins.

Recommended application

Western blot



Immunogen

A synthetic peptide corresponding to a sequence mapping at the C-terminal of human HIF-1 α , identical to the related rat and mouse sequence.

Purity

Immunogen affinity purified.

Application

Western blot

At 2 μ g/ml with the appropriate system to detect HIF-1 α in cells and tissues.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500 μ g/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for at least one month.

It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

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BACKGROUND

HIF-1 α (Hypoxia-inducible factor 1 α , HIF1A) is a transcription factor that mediates cellular and systemic homeostatic responses to reduced O₂ availability in mammals, including angiogenesis, erythropoiesis and glycolysis. This gene was mapped to 14q21-q24. HIF-1 α transactivate genes required for energy metabolism and tissue perfusion and is necessary for embryonic development and tumor explant growth. HIF-1 α is over expressed during carcinogenesis, myocardial infarction and wound healing. It is crucial for the cellular response to hypoxia and is frequently over expressed in human cancers, resulting in the activation of genes essential for cell survival. HIF-1 α regulates the survival and function in the inflammatory microenvironment directly. It is a transcription factor that plays a pivotal role in cellular adaptation to changes in oxygen availability.

Reference

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2. Elson, D. A.; Thurston, G.; Huang, L. E.; Ginzinger, D. G.; McDonald, D. M.; Johnson, R. S.; Arbeit, J. M. : Induction of hypervascularity without leakage or inflammation in transgenic mice overexpressing hypoxia-inducible factor-1-alpha. *Genes Dev.* 15: 2520-2532, 2001.
3. Koshiji, M.; To, K. K.-W.; Hammer, S.; Kumamoto, K.; Harris, A. L.; Modrich, P.; Huang, L. E. : HIF-1-alpha induces genetic instability by transcriptionally downregulating MutS-alpha expression. *Molec. Cell* 17: 793-803, 2005.
4. Ivan, M.; Kondo, K.; Yang, H.; Kim, W.; Valiando, J.; Ohh, M.; Salic, A.; Asara, J. M.; Lane, W. S.; Kaelin, W. G., Jr. : HIF-alpha targeted for VHL-mediated destruction by proline hydroxylation: implications for O(2) sensing. *Science* 292: 464-468, 2001.