Product Information Sheet

Polyclonal Anti-Hypoxia-inducible factor-1α, ***HIF-1α (Magnetic Bead Conjugate)***

Catalogue No. PA1041-M

Lot No. 02J01

Ig type: rabbit IgG

Size: 100μg/vial

Specificity

Human, mouse, rat.
No cross reactivity with other proteins.

Recommended application

ImmunoPrecipitation (IP)

Immunogen

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

Purity

Immunogen affinity purified.

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN_3.

Storage

Store at 4˚C for frequent use.

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation.

BACKGROUND

HIF-1α (Hypoxia-inducible factor 1α,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-1α transactivate genes required for energy metabolism and tissue perfusion and is necessary for embryonic development and tumor explant growth. HIF-1alpha 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-1α 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.

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