Polyclonal Anti-HIF-2α ***(CRF) (*Sepharose Bead Conjugate)**

Catalogue No. PA11229-S

Lot No. 08J01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Rat. No cross reactivity with other proteins.

Recommended application

(Immunoprecipitation(IP)

Immunogen

A synthetic peptide mapping at the amino acids 202-240 of rat HIF-2α.

Purification

Immunogen affinity purified.

Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN_3a_3 preservative.

Storage

Store at 4˚C for frequent use.

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

BACKGROUND

HIF-2 alpha is also designated EPAS1 whose gene is mapped to 2p21-p16. The predicted mouse protein is 88% identical to human EPAS1. The human EPAS1 gene contains 15 exons and spans at least 120 kb. The positions of the introns within the genomic region encoding the N-terminal bHLH-PAS domains of EPAS1 and AHR are similar, suggesting that the 5-prime ends of the 2 genes may have arisen from a gene duplication event1. Moreover, the predicted protein shares 48% sequence identity with HIF1-alpha, a bHLH-PAS transcription factor that induces EPO gene expression in cultured cells in response to hypoxia. Like HIF1A, EPAS1 binds to and activates transcription from the HIF1A response element derived from the 3-prime flanking region of the EPO gene. EPAS1 is predominantly expressed in highly vascularized tissues of adult humans and in endothelial cells of the mouse adult and embryo. Furthermore, EPAS1 may represent an important regulator of vascularization, perhaps involving the regulation of endothelial cell gene expression in response to hypoxia2. HIF2A is expressed at relatively higher levels in villus sections of placenta and in lung samples compared with other tissues examined3. In addition, The variation in EPAS1 influences the relative contribution of aerobic and anaerobic metabolism and hence the maximum sustainable metabolic power for a given event duration4.

REFERENCE

1. Tian, H.; McKnight, S. L.; Russell, D. W. : Endothelial PAS domain protein 1 (EPAS1), a transcription factor selectively expressed in endothelial cells. Genes Dev. 11: 72-82, 1997.

2. Tian, H.; McKnight, S. L.; Russell, D. W. : Endothelial PAS domain protein 1 (EPAS1), a transcription factor selectively expressed in endothelial cells. Genes Dev. 11: 72-82, 1997.

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4. Henderson, J.; Withford-Cave, J. M.; Duffy, D. L.; Cole, S. J.; Sawyer, N. A.; Gulbin, J. P.; Hahn, A.; Trent, R. J.; Yu, B. : The EPAS1 gene influences the aerobic-anaerobic contribution in elite endurance athletes. Hum. Genet. 118: 416-423, 2005.

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