

Basic Information

Product Name	Anti-EPAS1 Antibody (Clone#OTI2G5)
Gene Name	EPAS1
Source	Mouse
Clonality	Monoclonal
Isotype	IgG1
Species Reactivity	human, mouse, rat
Tested Application	WB
Contents	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Immunogen	Human recombinant protein fragment corresponding to amino acids 584-870 of human EPAS1 (NP_001421) produced in E.coli.
Concentration	500 ug/ml
Purification	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Observed MW	96 kDa
Dilution Ratios	Western blot (WB):1:2000

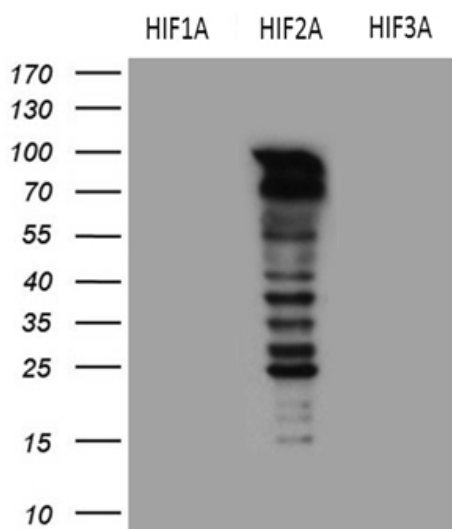
Storage

Stable for 12 months from date of receipt. Store at -20°C as received.

Background Information

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.

Selected Validation Data



HEK293T cells were transfected with the pCMV6-HIF1A (Cat#), pCMV6-EPAS1 (Cat#) and pCMV6-HIF3A (Cat#) (1:2000).