Hypoxia Inducible Factor 2a (HIF3A) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Hypoxia Inducible Factor 2a (Hif3a), Polyclonal Antibody
Full Product Name	Hypoxia Inducible Factor 2a (Hypoxia Inducible Factor 2 alpha, Hypoxia Inducible Factor 2 alpha Subunit, HIF-2a, Endothelial PAS Domain Containing Protein 1, Endothelial Pas Domain Protein 1, EPAS1, EPAS-1, HIF-2 alpha, HIF2a, HIF1 alpha-like Factor, HLF
Product Gene Name	anti-Hif3a antibody
Product Synonym Names	Anti -Hypoxia Inducible Factor 2a (Hypoxia Inducible Factor 2 alpha, Hypoxia Inducible Factor 2 alpha Subunit, HIF-2a, Endothelial PAS Domain Containing Protein 1, Endothelial Pas Domain Protein 1, EPAS1, EPAS-1, HIF-2 alpha, HIF2a, HIF1 alpha-like Factor, HLF
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse, Rat
Form/Format	Supplied as a lyophilized powder from PBS, pH 7.4, 5% BSA, 0.05% thimerosal, 0.05% sodium azide. Reconstitute with sterile dH2O.
Purity/Purification	Affinity Purified Purified by immunoaffinity chromatography.
Specificity	Recognizes rat HIF-2a. Species Cross-Reactivity: mouse.
Preparation and Storage	Lyophilized powder may be stored at -20 degree C. Stable for 12 months at -20 degree C. Reconstitute with sterile dH2O. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Reconstituted product is stable for 12 months at -20 degree C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.
Molecular Weight	72,888 Da
Chromosome Location	Chromosome: 1; NC_005100.3 (80223828..80245130, complement). Location: 1q21
3D Structure	ModBase 3D Structure for Q9JHS2
Immunogen	Synthetic peptide mapping at the aa202-240 of rat HIF-2a.
Product Categories/Family for anti-Hif3a antibody	Antibodies; Abs to Transcription Factors
Applications Tested/Suitable for anti-Hif3a antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC)
Application Notes for anti-Hif3a antibody	Suitable for use in Western Blot, Immunohistochemistry, and Immunocytochemistry. Dilution: Western Blot: 1ug/ml Immunohistochemistry: 0.5-1ug/ml

Related Product Information for anti-Hif3a antibody	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 event. 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 hypoxia. 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 duration.
Other Notes	Small volumes of anti-Hif3a antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Hif3a purchase	MBS630666 is an antibody targeting Hif3a. Also known as Hypoxia Inducible Factor 2a (Hypoxia Inducible Factor 2 alpha, Hypoxia Inducible Factor 2 alpha Subunit, HIF-2a, Endothelial PAS Domain Containing Protein 1, Endothelial Pas Domain Protein 1, EPAS1, EPAS-1, HIF-2 alpha, HIF2a, HIF1 alpha-like Factor, HLF. Reactive in Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Hif3a. It may not necessarily be applicable to this product.

NCBI GI #	11968112
NCBI GeneID	64345
NCBI Accession #	NP_071973.1
UniProt Primary Accession #	Q9JHS2
UniProt Related Accession #	Q9JHS2
GenBank Nucleotide #	NM_022528.2
NCBI Official Full Name	hypoxia-inducible factor 3-alpha
NCBI Official Synonym Full Names	hypoxia inducible factor 3, alpha subunit
NCBI Official Symbol	Hif3a
NCBI Official Synonym Symbols	Mop7
UniProt Protein Name	Hypoxia-inducible factor 3-alpha
UniProt Synonym Protein Names	HIF3-alpha-1
Protein Family	Hypoxia-inducible factor
UniProt Gene Name	Hif3a
UniProt Synonym Gene Names	HIF-3-alpha; HIF3-alpha
UniProt Entry Name	HIF3A_RAT
NCBI Protein Information	hypoxia-inducible factor 3-alpha; HIF3-alpha; HIF-3 alpha; HIF-3-alpha; HIF3 alpha 1; HIF3-alpha-1; hypoxia inducible factor 3a; hypoxia inducible factor 3 alpha; hypoxia-inducible factor 3 alpha
NCBI Summary for Hif3a	binds HIF-responsive elements and activates transcription in vitro [RGD, Feb 2006]

UniProt Comments for Hif3a	HIF3A: Involved in adaptive response to hypoxia. Suppresses hypoxia-inducible expression of HIF1A and EPAS1. Binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters. The complex HIF3A-ARNT activates the transcription of reporter genes driven by HRE. Isoform 4 has a dominant-negative function of inactivating HIF1A-mediated transcription. Isoform 4 attenuates the binding of HIF1A to hypoxia-responsive elements (HRE), thus inhibiting HRE-driven transcription. Hypoxia induces down-regulation of isoform 4, leading to activation of HIF1A in hypoxia. Conversely, upon restoring normoxia, the expression of isoform 4 increases and thereby secure an inhibition of HIF1A activity. Isoform 4 may be a negative regulator of hypoxia-inducible gene expression in the kidney and may be involved in renal tumorigenesis. Functions as an inhibitor of angiogenesis in the cornea. 7 isoforms of the human protein are produced by alternative splicing. Protein type: Transcription factor; Tumor suppressor Cellular Component: cytoplasm; nucleus Molecular Function: protein dimerization activity; signal transducer activity; DNA binding; transcription coactivator activity; transcription corepressor activity; transcription factor activity Biological Process: regulation of transcription from RNA polymerase II promoter; transcription from RNA polymerase II promoter; regulation of transcription, DNA-dependent; transcription, DNA-dependent; response to hypoxia; positive regulation of transcription from RNA polymerase II promoter; signal transduction
Research Articles on Hif3a	**1.** The association of IPAS with Bcl-x(L) was also observed in living cells by the FLIM-based FRET analysis, indicating direct binding between the two proteins.
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