

Datasheet: MCA5695B

Description:	MOUSE ANTI HUMAN HIF1 ALPHA:Biotin
Specificity:	HIF1 ALPHA
Other names:	HYPOXIA-INDUCIBLE FACTOR 1-ALPHA
Format:	Biotin
Product Type:	Monoclonal Antibody
Clone:	ESEE122
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Paraffin (1)	■			
ELISA	■			
Western Blotting	■			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1) **Special conditions apply - see [*]**

Target Species	Human
Product Form	Purified IgG conjugated to Biotin - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
Immunogen	Recombinant human HIF1 alpha
External Database Links	UniProt: Q16665 Related reagents

Entrez Gene:[3091](#) [HIF1A](#) [Related reagents](#)

Synonyms	BHLHE78, MOP1, PASD8
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the NS-1 myeloma cell line.
Specificity	Mouse anti Human HIF1 alpha antibody, clone ESEE122 recognizes human HIF1α, also known as Hypoxia-inducible factor 1-alpha, ARNT-interacting protein, Basic-helix-loop-helix-PAS protein MOP1, Class E basic helix-loop-helix protein 78, Member of PAS protein 1 or PAS domain-containing protein 8. HIF1α is a widely expressed bHLH and PAS domain containing transcription factor, a critical regulatory protein in the host response to hypoxia. HIF1α interacts with the HIF1β/ARNT subunit to form the highly-conserved heterodimeric HIF-1 transcriptional complex. During hypoxic conditions, HIF1α translocated from a normoxic cytoplasmic location to the nucleus and activates transcription of several genes including erythropoietin, VEGF and glucose transporters, encoding proteins involved in oxygen delivery and metabolic adaptation to hypoxia. Under normal oxygen conditions, HIF1α is targeted by HIF prolyl-hydroxylase, followed by rapid proteolytic degradation. Overexpression of HIF1α occurs in many common human cancers, including pancreatic, bladder and renal carcinomas (Semenza 2003). Mouse anti Human HIF1 alpha antibody, clone ESEE122 has been shown to be suitable for the staining of snap-frozen cell pellets (Talks. et al. 2000).
Immunohistology	*This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase, or antigen retrieval using heat treatment prior to staining of paraffin sections. EDTA pH9.0 is recommended for this purpose.
Histology Positive Control Tissue	Human tonsil
Western Blotting	MCA5695B detects a band of approximately 135kDa in 0.1% hypoxia HeLa cell lysates ⁽¹⁾ .
References	1. Talks, K.L. <i>et al.</i> (2000) The expression and distribution of the hypoxia-inducible factors HIF-1alpha and HIF-2alpha in normal human tissues, cancers, and tumor-associated macrophages. Am J Pathol. 157 (2): 411-21.
Further Reading	1. Semenza, G.L. (2000) HIF-1 and human disease: one highly involved factor. Genes Dev. 14 (16): 1983-91.
Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from the date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf

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