

Datasheet: MCA5644

**BATCH NUMBER 154571**

<b>Description:</b>	MOUSE ANTI HUMAN HIF1 ALPHA
<b>Specificity:</b>	HIF1 ALPHA
<b>Other names:</b>	HYPOXIA-INDUCIBLE FACTOR 1-ALPHA
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	Halpha111a
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.2 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Paraffin (1)	▪			1/25
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)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.**

**EDTA pH9.0 is recommended for this purpose.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )

## Stabilisers

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Carrier Free Yes

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Approx. Protein Concentrations IgG concentration 1.0 mg/ml

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Immunogen Recombinant human HIF1 alpha.

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## External Database Links

### UniProt:

[Q16665](#) [Related reagents](#)

### Entrez Gene:

[3091](#) HIF1A [Related reagents](#)

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Synonyms BHLHE78, MOP1, PASD8

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RRID AB\_10671910

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## Specificity

**Mouse anti Human HIF1 alpha antibody, clone Halpha111a** recognizes human Hypoxia-inducible factor 1-alpha otherwise known as HIF1 alpha (HIF1A) or ARNT interacting protein, a widely expressed [bHLH-PAS](#) transcription factor, which acts as a critical regulatory protein in the host response to hypoxia ([Kubis \*et al.\* 2005](#)).

HIF1A and [HIF1B, also known as ARNT](#) form the highly-conserved heterodimeric HIF-1 transcriptional complex ([Carmeliet \*et al.\* 1998](#)). During hypoxic conditions, HIF1A accumulates in the nucleus and activates the transcription of many genes encoding proteins involved in the production of oxygen delivery and metabolic adaptation, such as those for vascular endothelial growth factor ([VEGFA](#)). Under normal oxygen conditions, HIF1A is targeted by hypoxia inducible factor prolyl-hydroxylases, followed by rapid protease degradation, which is inhibited during hypoxia ([Hirsilä \*et al.\* 2003](#)). Overexpression of HIF1A occurs in many common human cancers, including pancreatic, bladder and renal carcinomas ([Shibaji \*et al.\* 2003](#)).

Mouse anti Human HIF1 $\alpha$ , clone Halpha111a has been successfully used for the identification of HIF1 $\alpha$  in human samples by both immunohistochemistry and western blotting.

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## Histology Positive Control Tissue

Human tonsil

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## Further Reading

1. Semenza, G.L. (2000) HIF-1 and human disease: one highly involved factor. [Genes Dev. 14 \(16\): 1983-91.](#)

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## 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.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5644">https://www.bio-rad-antibodies.com/SDS/MCA5644</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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