

HIF1A

CONTACT INFORMATION:	Monoclonal Antibodies Unit. Centro Nacional de Investigaciones Oncológicas
STATUS:	Validated
TYPE:	Rat monoclonal
CLONE NAME:	SIMA343B
PROTEIN:	Hypoxia-inducible factor 1-alpha
PROTEIN WEB:	https://www.uniprot.org/uniprot/Q61221
ANTIGEN USED:	mouse HIS-HIF1a (fragment 530-825)
FUSION PARTNER:	NS1/Ag4-1 (NS1) cells
ISOTYPE:	IgG2a
SPECIES REACTIVITY:	human and mouse
PREPARATION AND STORAGE:	Aliquot and store at 4C. Do not freeze

DESCRIPTION

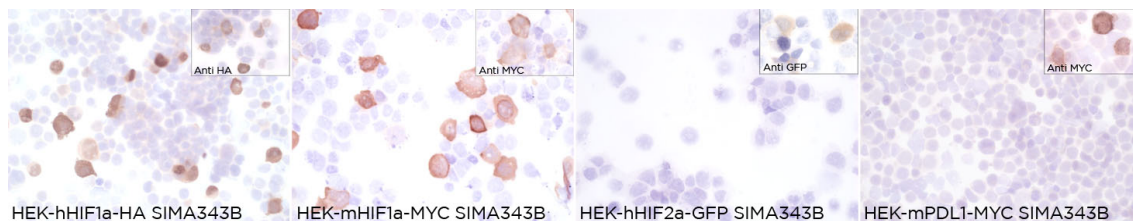
Functions as a master transcriptional regulator of the adaptive response to hypoxia. Under hypoxic conditions, activates the transcription of over 40 genes, including erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, HILPDA, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease.

APPLICATIONS

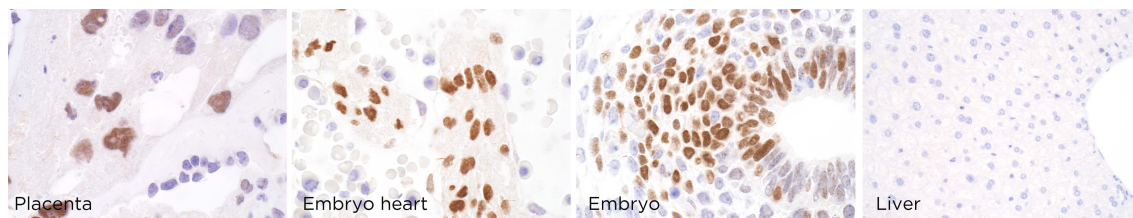
IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species
Frozen tissue and cytopspins									
Recommended	SIMA3 43B	Neat	supernatant						
Paraffin tissue									

Recommended	SIMA343B	1:30	supernatant			Placenta	Liver		
-------------	----------	------	-------------	--	--	----------	-------	--	--

Immunofluorescence

**SIMA343B mAb is able to detect human and mouse HIF1a protein in immunocytochemistry**

To confirm that SIMA343B mAb recognizes human and mouse HIF1a protein, immunocytochemistry on frozen cytopins preparation of human and mouse HIF1a and hHIF2a expressed in HEK293T was performed. Anti-MYC, anti-HA and anti GFP Abs were used as positive controls. Cytopsin preparation of mouse PDL1 protein was used as negative control.

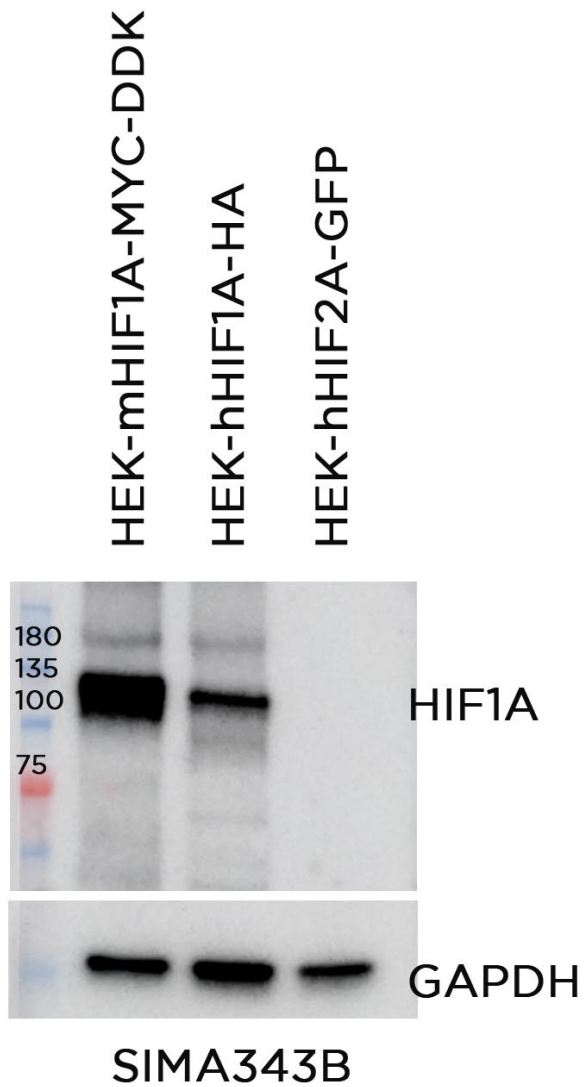
**SIMA343B mAb is able to detect mouse HIF1a protein in mouse paraffin tissues**

WB Techniques	Clone	Dilution	Antibody concentration	Positive control	Negative control	Expected MW	Observed Mw	Positivity in other species
---------------	-------	----------	------------------------	------------------	------------------	-------------	-------------	-----------------------------

Western Blotting

Monoclonal Antibodies Catalogue

Recommended	SIMA343 B	Neat	supernatant			93kDa	>100kDa	
Immunoprecipitation								



SIMA343B mAb is able to detect human Hif1a protein by WB (over-expression).

Predicted molecular weight: 93kDa

Observed molecular weight: >100kDa

LANES

Lane 1 HEK-mouse HIF1A-MYC-DDK (10ug) (+)

Lane 2 HEK-human HIF1A-HA (10ug) (+)

Lane 3 HEK-human HIF2a-GFP (10ug) (-)