

Product datasheet for **TA336260**

HIF-1 alpha (HIF1A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ChIP, ELISA, ICC/IF, IHC, Immunoblotting, IP, Simple Western, WB
Recommended Dilution:	Dual RNAscope ISH-IHC, Chromatin Immunoprecipitation (ChIP), Western Blot: 1:500 - 1:1000, Simple Western: 1:100, Gel Super Shift Assays: 1:1 - 1:100, Immunohistochemistry: 1:100 - 1:500, Immunohistochemistry-Paraffin: 1:100 - 1:500, Immunohistochemistry-Frozen: 1:100 - 1:500, Immunoprecipitation: 1:1000, Immunocytochemistry/ Immunofluorescence, ELISA, Immunoblotting, Chromatin Immunoprecipitation Sequencing, Knockout Validated
Reactivity:	Human, Mouse, Rat, Canine, Guinea Pig, Primate, Xenopus
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Fusion protein made to an internal sequence of human HIF-1 alpha (containing amino acids 432-528) [UniProt Q16665]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	120 kDa
Gene Name:	hypoxia inducible factor 1 alpha subunit
Database Link:	NP_851397 Entrez Gene 15251 Mouse Entrez Gene 29560 Rat Entrez Gene 3091 Human Q16665



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Background:

HIF-1 alpha (HIF1A) is a nuclear protein involved in mammalian oxygen homeostasis. This occurs as a posttranslational modification by prolyl hydroxylation. HIF-1 is a heterodimer composed of HIF-1 alpha and HIF-1 beta subunits. Both subunits are constantly translated. However, under normoxic conditions, human HIF-1 alpha is hydroxylated at Pro402 or Pro564 by a set of HIF prolyl hydroxylases, is polyubiquitinated, and eventually degraded in proteosomes. Under hypoxic conditions, the lack of hydroxylation prevents HIF degradation and increases transcriptional activity. Therefore, the concentration of HIF-1 alpha increases in the cell.

Synonyms:

bHLHe78; HIF-1-alpha; HIF-1A; HIF-1alpha; HIF1; HIF1-ALPHA; MOP1; PASD8

Note:

This HIF-1 alpha antibody is useful for Chromatin Immunoprecipitation (PMID 22891341), Immunohistochemistry, Western Blot, Gel Shift Assays, Immunocytochemistry/Immunofluorescence (PMID: 21270095; 21270095), and Immunoprecipitation. In Western blot a band is observed ~120 kDa. IHC applications have been mixed on mouse. For CHIP, nuclear extracts are recommended. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended.

Protein Families:

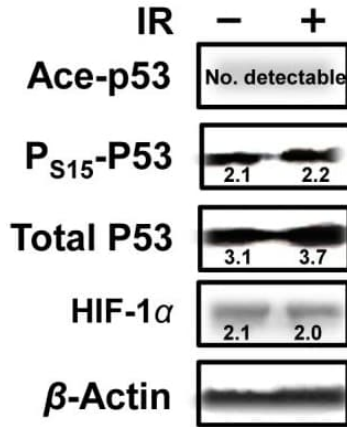
Transcription Factors

Protein Pathways:

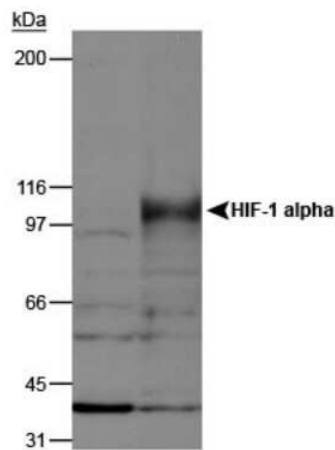
mTOR signaling pathway, Pathways in cancer, Renal cell carcinoma

Product images:

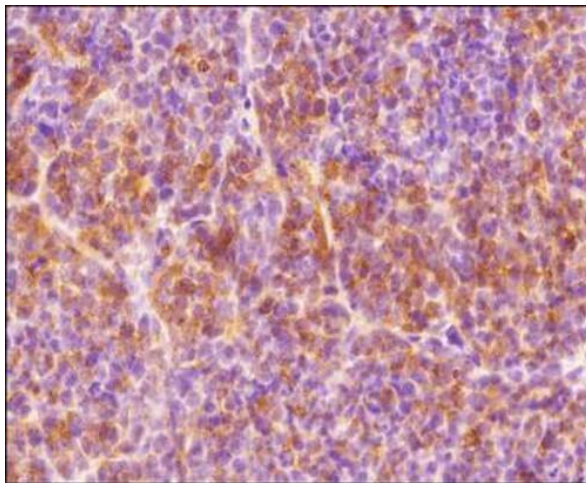
Simple Western: HIF-1 alpha Antibody - BSA Free TA336260 - Image shows a specific band for HIF-1 alpha in 0.2 mg/mL of Hypoxic HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

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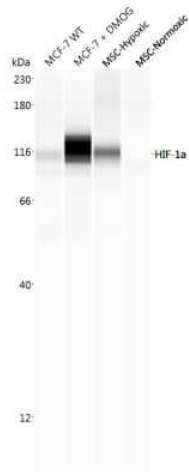
P53 was increased response to IR in the fetal brain. Even though no significant change in protein level, total p53 and phosphorylation of P53 at ser15 were increased compared with HIF-1 α in fetal brains response to IR. Numbers in the pictures show the average of three independent experiments (n=3 from 3 individual pregnant mice).



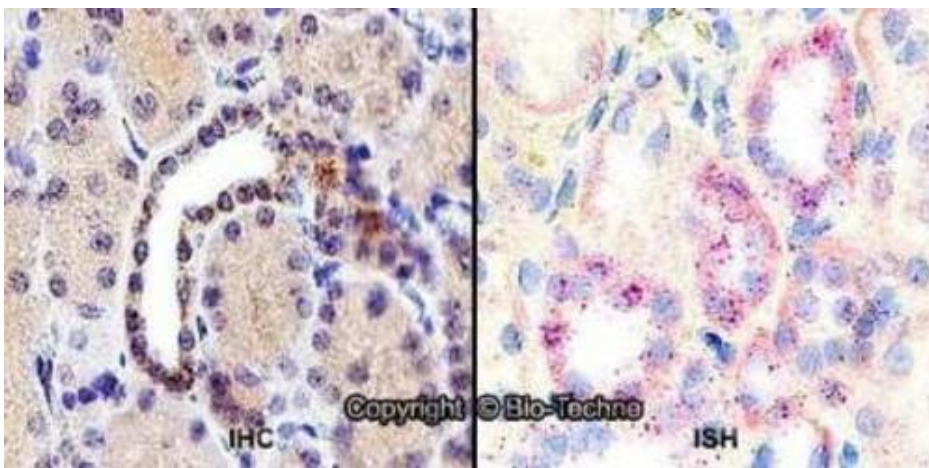
Western Blot: HIF-1 alpha Antibody - BSA Free TA336260 - Analysis of HIF-1 alpha using TA336260, on normoxic and hypoxic nuclear rat cell lysates.



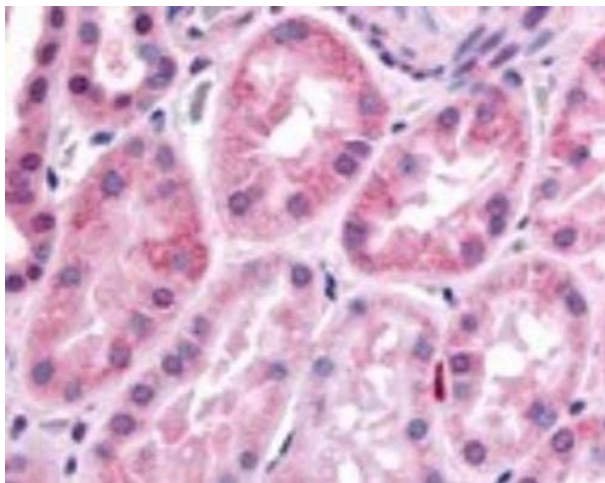
Immunohistochemistry-Paraffin: HIF-1 alpha Antibody - BSA Free TA336260 - Analysis of FFPE tissue section of human endometrium carcinoma AN3CA cell line based xenograft using rabbit polyclonal HIF-1 alpha antibody TA336260 at 1:300 dilution. The signal was developed using HRP-labelled secondary antibody and DAB reagent, and the section was further counterstained using hematoxylin. The tested section depicted mainly a diffused cytoplasmic staining but there were some cells which showed nuclear signal also (representing hypoxic cells).



Simple Western: HIF-1 alpha Antibody - BSA Free TA336260 - Simple Western lane view shows lysates of MCF +/- DMOG, BioSpherix MSCs in hypoxic conditions, and BioSpherix MSCs in normoxic conditions loaded at 0.5 mg/ml. A band was detected for HIF-1 alpha at approximately 116 kDa (as indicated) using TA336260 (1:100 dilution) followed by Anti-Rabbit Secondary Antibody (042-206, ProteinSimple). This experiment was conducted under standard assay conditions, and using the 12-230 kDa separation module (SW-W004). Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody. Image from an internal validation.



Dual RNAscope ISH-IHC: HIF-1 alpha Antibody - BSA Free TA336260 - Formalin-fixed paraffin-embedded tissue sections of human kidney were probed for HIF-1 alpha mRNA (ACD RNAscope Probe, catalog #605228; Fast Red chromogen, ACD catalog # 322750). Adjacent tissue section was processed for immunohistochemistry using Rabbit Polyclonal (Novus Biologicals catalog # TA336260) at 1:500 dilution with one-hour incubation at room temperature followed by incubation with anti-rabbit IgG VisUCyte HRP Polymer Antibody (Catalog # VC003) and DAB chromogen (yellow-brown). Tissue was counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of tubules.



Immunohistochemistry: HIF-1 alpha Antibody - BSA Free TA336260 - Staining of human kidney, renal tubular epithelium in cortex using TA336260.