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Datasheet for 600-401-435

Hif3 alpha Antibody

Overview

Description:	Anti-HIF3a (RABBIT) Antibody - 600-401-435
Item No.:	600-401-435
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	One of the most important factors in the cellular response to hypoxia is hypoxia-inducible factor (HIF), which transcriptionally activates genes encoding proteins that mediate adaptive responses to reduced oxygen availability. HIF is a member of the basic helix-loop-helix (bHLH) superfamily, in which the HLH domain mediates subunit dimerization while the basic domain binds to DNA. HIF binds to the hypoxia-responsive elements (HRE) located within the enhancer/promoter of hypoxia-inducible target genes and hence inhibits HRE-driven transcriptional activation. HIF target genes play critical roles in metabolism, angiogenesis, cell proliferation, and cell survival; in fact, HIF3-a may be a marker for tumor growth and apoptosis. Hif3 may participate in disorders with the cornea, lung, and heart. Anti-Hif3 alpha Antibody is useful for researchers interested in transcription factors, DNA binding, and Epilepsy research.
Synonyms:	rabbit anti-Hif3a antibody, Hif3 alpha antibody, Hif3α antibody, Hypoxia Inducible Factor 3-alpha antibody, Hypoxia inducible factor 3 alpha subunit antibody, Inhibitory PAS domain protein antibody, IPAS antibody, HIF-3-alpha, Basic-helix-loop-helix-PAS protein MOP7, HIF3-alpha-1, Neonatal and embryonic PAS protein
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Hif3a
Reactivity:	Mouse

Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 575-600 of mouse Hif3 a (Hypoxia Inducible Factor).
Purity/Specificity:	This affinity-purified antibody is directed against mouse Hif3alpha protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with Hif3a protein from mouse (100% homology) and rat (91% homology). Reactivity against human Hif3a is not expected as only 75% homology for the immunizing sequence is noted. No reactivity is expected against other forms of Hif proteins. Reactivity against homologues from other sources is not known.
Relevant Links:	• UniProtKB - Q0VBL6 • NCBI - 170295859 • GeneID - 53417

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity-purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 72 kDa in size corresponding to Hif3 alpha protein by western blotting in the appropriate cell lysate or extract. This antibody is expected to cross-react with mouse and rat Hif3 alpha due to sequence homology.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:14,000 - 1:80,000
WB:	1:1,000 - 1:8,000

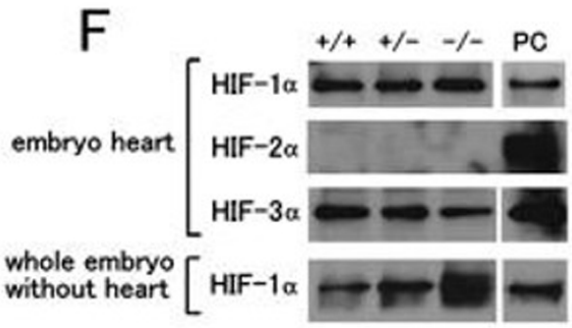
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.2 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

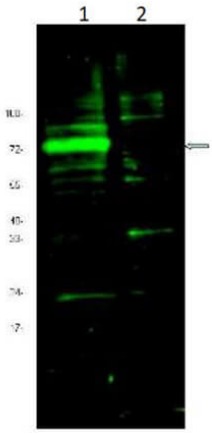
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
(F) Western blots of E11.5 embryonic heart total extracts or nuclear extracts from the remaining tissues of embryo proper after removal of the heart. Antibodies are indicated in the figure. PC, positive controls, including nuclear extract of E11.5 wild-type embryo for HIF-1α, total extracts of E11.5 wild-type placenta for HIF-2α, and CoCl2-treated NIH 3T3 cell total lysate for HIF-3α. Fig 6. PMID: 16966370



Western Blot
Western blot using Rockland's Affinity Purified Anti-Hif3A antibody shows detection of a band ~72 kDa corresponding to mouse Hif3A [arrowhead]. Approximately 10 µg of a CoCl2 treated 3T3 cell lysate [lane 1] and control 3T3 cell lysate (p/n W10-000-358) [lane 2] were separated by 4-20% SDS-PAGE and transferred onto nitrocellulose. Treatment of exponentially growing 3T3 cells with 130 µM CoCl2 for 6 h at 37° C effectively mimics hypoxia. After blocking the membrane was probed overnight at 4° C with the primary antibody diluted to 1:1,600. The membrane was washed and reacted with a 1:10,000 dilution of IRDye™800 conjugated Gt-a-Rabbit IgG [H&L] MX (p/n 611-132-122) for 45 min at room temperature. IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

References

- Takeda K et al. Placental but not heart defects are associated with elevated hypoxia-inducible factor alpha levels in mice lacking prolyl hydroxylase domain protein 2. *Mol Cell Biol.* (2006)

Disclaimer

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