

Anti-Hif3a (RABBIT) Antibody
Hif3 alpha Antibody
Catalog # ASR5226**Specification**

Anti-Hif3a (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Mouse
Reactivity	Mouse
Clonality	Polyclonal
Application	WB, E, I, LCI
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.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
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).
Preservative	0.01% (w/v) Sodium Azide

Anti-Hif3a (RABBIT) Antibody - Additional Information**Gene ID** 53417**Other Names**
53417**Purity**

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.

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.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Hif3a (RABBIT) Antibody - Protein Information

Name Hif3a {ECO:0000312|MGI:MGI:1859778}

Function

Acts as a transcriptional regulator in adaptive response to low oxygen tension. Acts as a regulator of hypoxia-inducible gene expression (PubMed:11734856, PubMed:21546903, PubMed:9840812). Plays a role in the development of the cardiorespiratory system (PubMed:18070924).

Cellular Location

Nucleus {ECO:0000250|UniProtKB:Q9Y2N7}. Cytoplasm {ECO:0000250|UniProtKB:Q9Y2N7}. Note=In the nuclei of all periportal and perivenous hepatocytes. In the distal perivenous zone, detected in the cytoplasm of the hepatocytes. Localized in the cytoplasm and nuclei under normoxia, but increased in the nucleus under hypoxic conditions Colocalized with HIF1A in kidney tumors. {ECO:0000250|UniProtKB:Q9JHS2, ECO:0000250|UniProtKB:Q9Y2N7}

Tissue Location

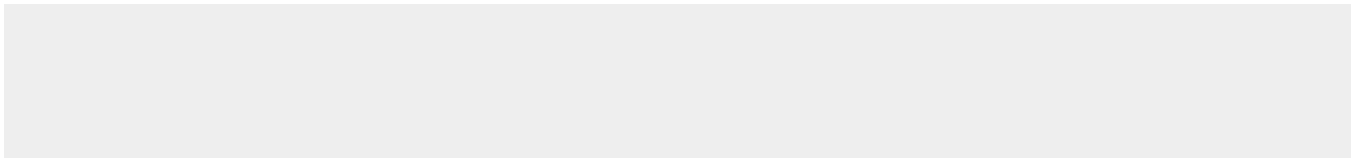
Isoform 3 is expressed in endothelial cells of vessels and capillaries in alveoli of the neonatal lung (at protein level) (PubMed:18070924). Expressed in lung, brain, heart and kidney (PubMed:9840812). Isoform 2 is expressed in heart and lung (PubMed:12119283). Isoform 2 is highly expressed in the epithelial cell layer of the cornea with lower expression in the layers of ganglion cells, inner nuclear cells, and rods and cones of the retina (PubMed:11734856). Isoform 2 is expressed in the cerebellum only in the Purkinje cell layer (PubMed:11734856).

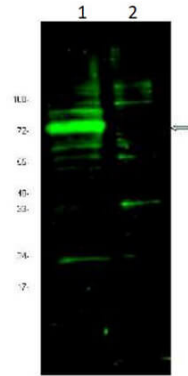
Anti-Hif3a (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Hif3a (RABBIT) Antibody - Images





Western blot using Rockland's Affinity Purified Anti-Hif3A antibody shows detection of a band ~72 kDa corresponding to mouse Hif3A [arrowhead]. Approximately 10 μ g 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 μ M 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.

Anti-Hif3a (RABBIT) Antibody - 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.