

# Product Datasheet

## FIH-1/HIF-1AN Antibody NB100-428SS

Unit Size: 0.025 ml

Store at 4C. Do not freeze.

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Updated 6/15/2014 v.20.1

**NB100-428SS**

FIH-1/HIF-1AN Antibody

| Product Information     |                                |
|-------------------------|--------------------------------|
| Unit Size               | 0.025 ml                       |
| Concentration           | 1.0 mg/ml                      |
| Storage                 | Store at 4C. Do not freeze.    |
| Clonality               | Polyclonal                     |
| Preservative            | 0.1% Sodium Azide              |
| Purity                  | Immunogen affinity purified    |
| Buffer                  | Tris-citrate/phosphate, pH 7-8 |
| Target Molecular Weight | 40.3 kDa                       |

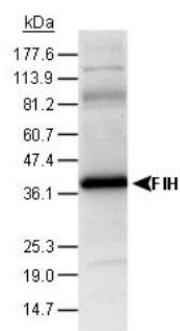
| Product Description |   |
|---------------------|---|
| Host                | Rabbit  |
| Gene ID             | 55662   |
| Gene Symbol         | HIF1AN  |
| Species             | Human, Mouse, Rat   |
| Species Reactivity  | Human, rat and mouse (PMID 19720742).   |
| Immunogen           | A synthetic peptide made to the C-terminal region of human Factor Inhibiting HIF-1 (between residues 300 and the C-terminus). [UniProt# Q9NWT6] |

| Product Application Details |  |
|-----------------------------|--|
| Applications                | Western Blot, Electron Microscopy, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation                                |
| Recommended Dilutions       | Electron Microscopy, Immunocytochemistry/Immunofluorescence, Immunohistochemistry 1:100, Immunohistochemistry-Paraffin, Immunoprecipitation 1:10-1:500, Western Blot 1:1000-1:5000 |

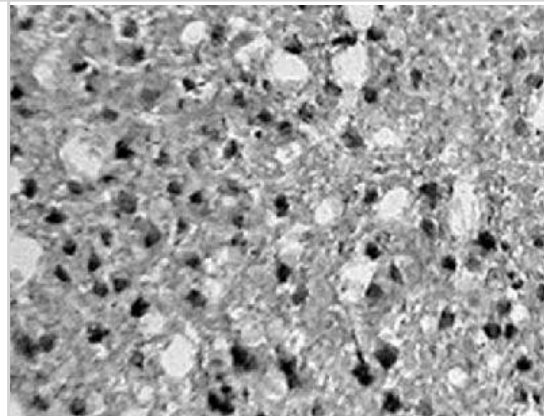


## Images

Western Blot: FIH-1/HIF-1AN Antibody [NB100-428] - WB analysis of astrocytes lysate from Rat brain using FIH-1/HIF-1AN antibody at 1:500 dilution with ECL detection. The antibody detected a major band at ~40 kDa position representing FIH-1/HIF-1AN protein.



Immunohistochemistry: Factor Inhibiting HIF-1 Antibody [NB100-428] - Detection of FIH-1 in rat brain tissue.



## Publications

Karttunen S, Duffield M, Scrimgeour N et al. Oxygen-dependent hydroxylation by Factor Inhibiting HIF (FIH) regulates the TRPV3 ion channel. *J. Cell. Sci.* 2014 Nov 20 [PMID: 25413349] (WB)

Schodel J, Bohr D, Klanke B et al. Factor inhibiting HIF limits the expression of hypoxia-inducible genes in podocytes and distal tubular cells. *Kidney Int.* 2010 [PMID: 20720525]

Rawluszko AA, Bujnicka KE, Horbacka K et al. Expression and DNA methylation levels of prolyl hydroxylases PHD1, PHD2, PHD3 and asparaginyl hydroxylase FIH in colorectal cancer. *BMC Cancer.* 2013 Nov 6 [PMID: 24195777] (WB, Human)

Khan Z, Michalopoulos GK, Stolz DB. Peroxisomal localization of hypoxia-inducible factors and hypoxia-inducible factor regulatory hydroxylases in primary rat hepatocytes exposed to hypoxia-reoxygenation. *Am J Pathol.* 2006 Oct [PMID: 17003483] (WB, IHC-P, ICC/IF, EM, Rat)

Janke K, Brockmeier U, Kuhlmann K et al. Factor Inhibiting HIF-1 (FIH-1) modulates protein interactions of Apoptosis-Stimulating p53 binding Protein 2 (ASPP2). *J Cell Sci* 2013 Apr 19 [PMID: 23606740] (WB, Human)

Nishida C, Kusubata K, Tashiro Y et al. MT1-MMP plays a critical role in hematopoiesis by regulating HIF-mediated chemokine/cytokine gene transcription within niche cells *Blood* 2012 Jun 7 [PMID: 22544701]

Lim CS, Kiriakidis S, Paleolog EM, Davies AH. Increased activation of the hypoxia-inducible factor pathway in varicose veins. *J Vasc Surg*;55(5):1427-1439e1. 2012 May. [PMID: 22277691] (WB, Human)

Minamishima YA, Moslehi J, Padera RF et al. A feedback loop involving the Phd3 prolyl hydroxylase tunes the mammalian hypoxic response in vivo. *Mol Cell Biol*;29(21):5729-41. 2009 Nov. [PMID: 19720742] (WB, Mouse)

Xu X, Vaithiyalingam S, Glick GG, Mordes DA, Chazin WJ, Cortez D. The basic cleft of RPA70N binds multiple checkpoint proteins, including RAD9, to regulate ATR signaling. *Mol Cell Biol*;28(24):7345-53. 2008 Dec. [PMID: 18936170]

Li, J et al. Protein kinase C-mediated modulation of FIH-1 expression by the homeodomain protein CDP/Cut/Cux. *Mol Cell Biol*;27(20):7345-53. 2007 Oct. [PMID: 17682059]

Ferguson III, JE, Wu, Y et al. ASB4 is a hydroxylation substrate of FIH and promotes vascular differentiation via an oxygen-dependent mechanism. *Mol Cell Biol*;27(18):6407-19. 2007 Sep. [PMID: 17636018]

Zheng X, Linke S, Dias JM et al. Interaction with factor inhibiting HIF-1 defines an additional mode of cross-coupling between the Notch and hypoxia signaling pathways. *Proc Natl Acad Sci U S A*;105(9):3368-73. 2008 Mar 4. [PMID: 18299578] (WB)

More publications at <http://www.novusbio.com/NB100-428>



## Procedures

### Western Blot protocol specific for Factor Inhibiting HIF-1 Antibody (NB100-428)

1. (30-40ug) of protein were separated via gel electrophoresis (10-20%) under denaturing conditions and transferred to nitrocellulose membrane.
2. Membrane was blocked overnight (4C) in TBS/Tween-20 (TBST) + 5% milk (blocking buffer).
3. Membrane was incubated with primary anti-FIH [cat# NB 100-428] (1:500) in blocking buffer for 2 hours at room temp.
4. Membrane was washed 3 times with TBST. 10 minutes each wash.
5. Membrane was incubated with HRP conjugated Donkey anti-rabbit secondary in blocking buffer for 2 hours at room temp.
6. Membrane was washed 3 times with TBST. 10 minutes each wash.
7. Membranes were developed for visualization using Super Signal(R) West Pico Chemiluminescent Substrate and captured on Hyperfilm ECL (Amersham Biosciences).

### Immunohistochemistry Protocol (NB100-428)

1. Prepared 18 micron frozen rat brain tissue sections (post fixed with 10% formalin for 30 minutes).
2. Dilute the primary antibody 1:100 and incubated with diluted FIH antibody (cat# NB 100-428) at 4C, overnight.
3. Diluted the secondary antibody, biotinylated anti-rabbit IgG, according to the manufacturer's guidelines and incubated overnight at 4C.
4. Diluted the tertiary antibody, HRP-conjugated streptavidin, according to the manufacturer's guidelines and incubated overnight at 4C.
5. Visualized with DAB oxidation by HRP.





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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

**For more information on our guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee).**

