

Product Datasheet

FIH-1/HIF-1AN Antibody - BSA Free NB100-428

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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NB100-428

FIH-1/HIF-1AN Antibody - BSA Free

Product Information

Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)
Target Molecular Weight	40.3 kDa

Product Description

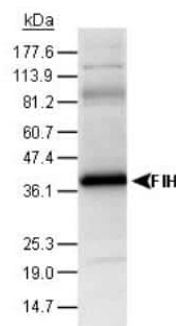
Host	Rabbit
Gene ID	55662
Gene Symbol	HIF1AN
Species	Human, Mouse, Rat
Reactivity Notes	Human, rat and mouse (PMID 19720742).
Immunogen	A synthetic peptide made to the C-terminal region of human Factor Inhibiting HIF-1 (between residues 300 and the C-terminus). [UniProt# Q9NWT6]

Product Application Details

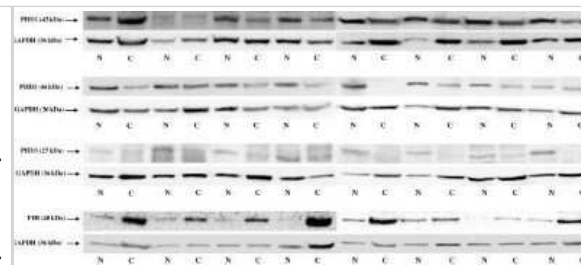
Applications	Western Blot, Electron Microscopy, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated, Knockout Validated
Recommended Dilutions	Western Blot 1:1000-1:5000, Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:50-1:200, Immunohistochemistry-Frozen 1:50-1:200, Electron Microscopy, Knockout Validated reported in scientific literature (PMID 31937588), Knockdown Validated

Images

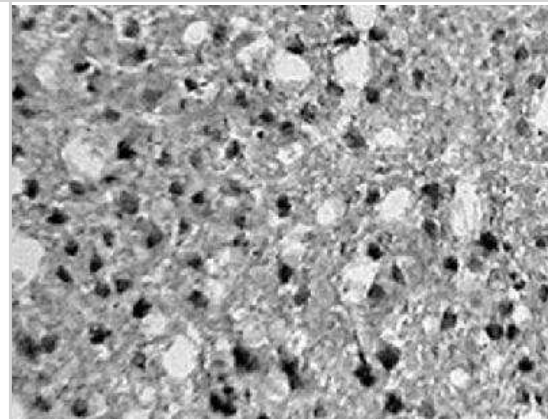
Western Blot: FIH-1/HIF-1AN Antibody [NB100-428] - Analysis of astrocytes lysate from Rat brain using FIH-1/HIF-1AN antibody at 1:500 dilution with ECL detection. The antibody detected a major band at ~40 kDa position representing FIH-1/HIF-1AN protein.



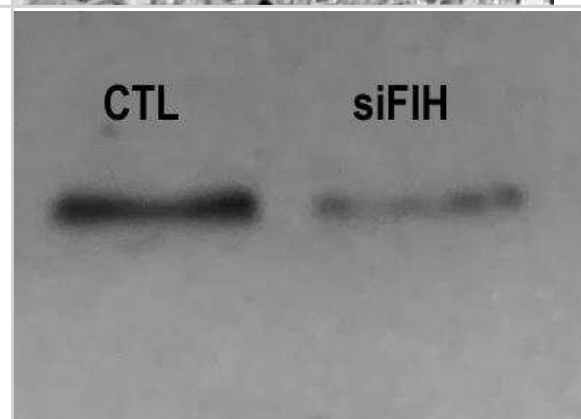
Western Blot: FIH-1/HIF-1AN Antibody [NB100-428] - Representative picture of western blot in histopathologically unchanged tissue (N) and primary cancerous tissue (C) from patients with CRC. Immunodetection of bands was performed with Rp anti- PHD1 (Catalog # NB100-310), - PHD2 (Catalog # NB100-137), - PHD3 (Catalog # NB100-139) and -FIH-1/HIF-1AN Ab (Catalog # NB100-139), followed by incubation with goat anti-rabbit HRP-conjugated Ab. The membrane was stripped and incubated with Rp anti-GAPDH Ab, followed by incubation with goat anti-rabbit HRP-conjugated Ab. Image collected and cropped by CiteAb from the following publication (<https://bmccancer.biomedcentral.com/articles/10.1186/1471-2407-13-526>), licensed under a CC-BY license.



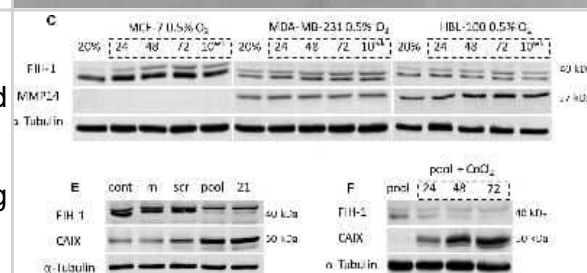
Immunohistochemistry: FIH-1/HIF-1AN Antibody [NB100-428] - Detection of FIH-1 in rat brain tissue.



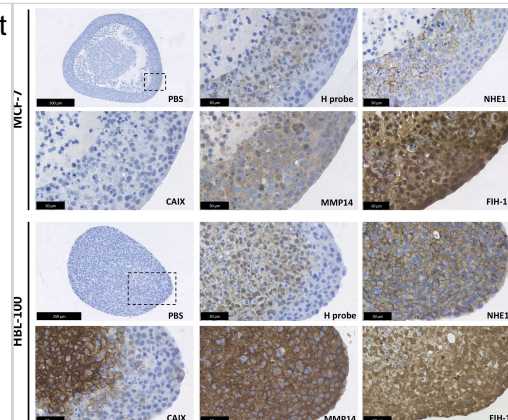
Western Blot: FIH-1/HIF-1AN Antibody [NB100-428] - Rat VSMC (vascular smooth muscle) cells treated (siFIH) or not (CTL) with a specific siRNA against FIH-1. Western blot image submitted by a verified customer review.



Western Blot: FIH-1/HIF-1AN Antibody [NB100-428] - (C) Cytoplasmic FIH-1 (lower band) and MMP14 expression levels in both aerobic and hypoxic conditions in the 3 cell lines. (E) siRNA targeting FIH-1 was used to assess whether FIH-1 had any effect on CAIX expression in MCF-7 cells cultured in 0.5% O₂ conditions. cont, control. m, transfection reagent alone. scr, scrambled siRNA. pool, mixture of 4 siRNAs targeting FIH-1. 21, single siRNA targeting FIH-1. (F) FIH-1 and CAIX expression levels in aerobic MCF-7 cells treated with either siRNA against FIH-1 alone, or both 400 uM CoCl₂ and siRNA together for 24, 48 and 72h. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/28476026/>) licensed under a CC-BY license.



Immunohistochemistry: FIH-1/HIF-1AN Antibody [NB100-428] - 3D target protein expression in multicellular tumor spheroids 3D expression analysis was carried out in the MCF-7, MDA-MB-231 & HBL-100 cell lines using multicellular tumor spheroids. The spheroids were cultured in spinner flasks for 1 week before fixation. Hypoxyprobe was used to examine the formation of hypoxic areas within the spheroids. NHE1, CAIX, MMP14 & FIH-1 expression was also analyzed. Incubation for an hour with PBS instead of primary antibody acted as a control. Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.17143>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Williams AL, Khadka VS, Anagaran MCT, Lee K et Al. miR-125 family regulates XIRP1 and FIH in response to myocardial infarction *Physiol Genomics* 2020-07-28 [PMID: 32716698]

Ugidos N, Mena J, Baquero S et al. Interactome of the Autoimmune Risk Protein ANKRD55 *Front. Immunol.* 2019-09-18 [PMID: 31620119]

Vera Schützhold, Jan Gravemeyer, Anne Bicker, Thomas Hager, Claudia Padberg, Jana Schäfer, Anna Wrobeln, Melanie Steinbrink, Seher Zeynel, Thomas Hankeln, Jürgen Christian Becker, Joachim Fandrey, Sandra Winning Knockout of Factor-Inhibiting HIF (Hif1an) in Colon Epithelium Attenuates Chronic Colitis but Does Not Reduce Colorectal Cancer in Mice. *Journal of immunology* (Baltimore, Md. : 1950) 2022-03-07 [PMID: 35121641]

Meehan J, Ward C, Turnbull A et al. Inhibition of pH regulation as a therapeutic strategy in hypoxic human breast cancer cells. *Oncotarget* 2017-04-17 [PMID: 28476026]

E G, Sun B, Liu B et al. Enhanced BPGM/2,3-DPG pathway activity suppresses glycolysis in hypoxic astrocytes via FIH-1 and TET2 *Brain research bulletin* 2022-11-08 [PMID: 36334804] (WB, Human)

Details:

Dilution used in WB 1:1000

Li ZL, Wang B, Lv LL et al. FIH-1-modulated HIF-1 alpha C-TAD promotes acute kidney injury to chronic kidney disease progression via regulating KLF5 signaling *Acta pharmacologica Sinica* 2021-03-03 [PMID: 33658705]

Chung Y, Saitoh Y, Hayashi T et al. Mint3 is dispensable for pancreatic and kidney functions in mice *Biochemistry and biophysics reports* 2020-12-01 [PMID: 33319072] (WB)

Docherty C K, Nilsen M et al. Influence of 2-Methoxyestradiol and Sex on Hypoxia-Induced Pulmonary Hypertension and Hypoxia-Inducible Factor-1-alpha. *J Am Heart Assoc* 2019-05-03 [PMID: 30819028] (WB, Human)

Mader J, Huber J, Bonn F et al. Oxygen-dependent asparagine hydroxylation of the ubiquitin-associated (UBA) domain in Cezanne regulates ubiquitin binding *J. Biol. Chem.* 2020-01-14 [PMID: 31937588] (WB, KO, Human)

Pillai MR, Mihi B, Ishiwata K et al. Myc-induced nuclear antigen constrains a latent intestinal epithelial cell-intrinsic anthelmintic pathway *PLoS ONE* 2019-02-26 [PMID: 30807587] (WB, Mouse)

Bullen JW, Tchernyshyov I, Holewinski RJ et al. Protein kinase A-dependent phosphorylation stimulates the transcriptional activity of hypoxia-inducible factor 1 *Sci Signal* 2016-05-31 [PMID: 27245613] (WB, Human)

Nakaoka HJ, Hara T, Yoshino S et al. NECAB3 Promotes Activation of Hypoxia-inducible factor-1 during Normoxia and Enhances Tumourigenicity of Cancer Cells *Sci Rep* 2016-03-07 [PMID: 26948053] (IP, Human)

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 for FIH-1/HIF-1AN Antibody (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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Products Related to NB100-428

NBP3-11826	HIF-1 alpha Knockout CoCl ₂ -treated/untreated HeLa Cell Lysate
NB100-428PEP	FIH-1/HIF-1AN Antibody Blocking Peptide
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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.

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