Product Datasheet

HIF-1 alpha Antibody
NBP1-02160

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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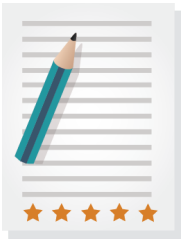
Updated 7/29/2024 v.20.1



NBP1-02160

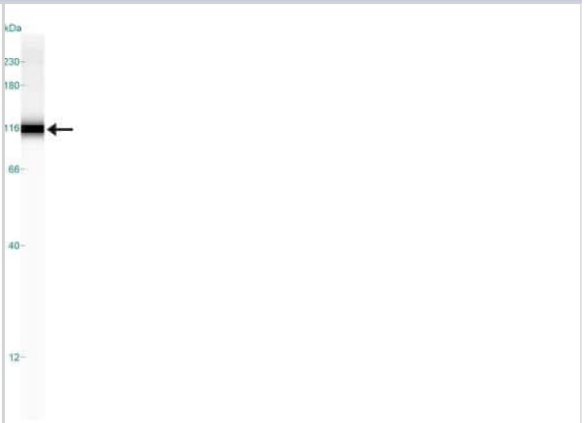
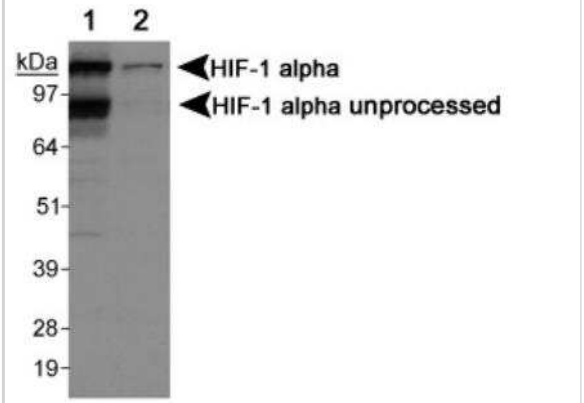
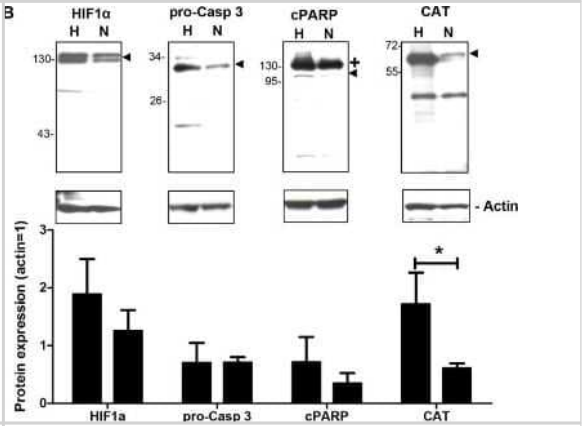
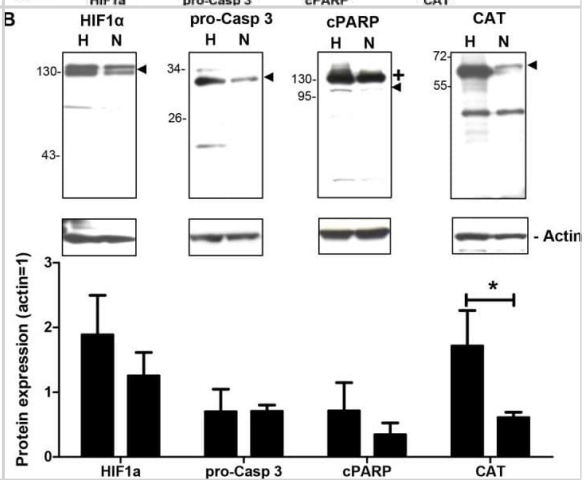
HIF-1 alpha Antibody

Product Information	
Unit Size	0.1 ml
Concentration	0.2 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS, 0.1% BSA, and 50% Glycerol
Target Molecular Weight	93 kDa

Product Description	
Host	Rabbit
Gene ID	3091
Gene Symbol	HIF1A
Species	Human, Mouse, Porcine, Bovine
Reactivity Notes	Use in Bovine reported in scientific literature (PMID:32127571). Immunogen displays the following percentage of sequence identity for non-tested species: Chicken (79%). Mouse and Porcine reactivities were reported by a customer review.
Immunogen	This HIF-1 alpha Antibody was developed against a genomic sequence made to an internal portion of human HIF-1 alpha (within amino acids 400 - 550) [Uniprot# Q16665].

Product Application Details	
Applications	Western Blot, Simple Western
Recommended Dilutions	Western Blot 1:3500, Simple Western 1:250
Application Notes	In WB, the bands are seen ~97 kDa and 120 kDa. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

Simple Western: HIF-1 alpha Antibody [NBP1-02160] - Simple Western lane view shows a specific band for HIF-1 alpha in 0.5 mg/ml of Hypoxic HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	
Western Blot: HIF-1 alpha Antibody [NBP1-02160] - Detection of HIF-1 alpha using NBP1-02160. Lane 1: COS7 CoCl treated cells Lane 2: COS7 untreated cells.	
Western Blot: HIF-1 alpha Antibody [NBP1-02160] - Effects of hypoxia generated by using the insert-based enzymatic system on the expression of hypoxia-associated proteins. Several hypoxia-associated proteins are differentially expressed between the hypoxia (H) and normoxia (N) groups at 1 hour after the hypoxic insult. Image collected and cropped by Citeab from the following publication (An insert-based enzymatic cell culture system to rapidly and reversibly induce hypoxia: investigations of hypoxia-induced cell damage, protein expression and phosphorylation in neuronal IMR-32 cells. Dis Model Mech (2013) licensed under a CC-BY license.	
Evo induces apoptotic cell death of HepG2 and SMMC-7721 cells via the NOD1-mediated apoptotic pathway in vitro. HepG2 and SMMC-7721 cells were treated with 10 μg/mL IE-DAP for 2 h before exposure to 1 μM Evo. Apoptosis (A), cycle arrest (B), apoptosis-related protein levels (C) and the proteins' levels of NOD1 pathway (D) in treated and untreated cells were measured by 5-ethynyl-2′-deoxyuridine (EdU) (×40), cellular propidium iodide (PI) fluorescence and Western blot methods. The percentage of proliferating cells (EdU+) was quantitated using ImageJ software (National Institutes of Health, Bethesda, MD, USA). Values are means and standard errors of three separate experiments (* p < 0.05 and ** p < 0.01 versus control, #p < 0.05 and ##p < 0.01 versus Evo). Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/30384473), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Chen X, Wang X, Cui Z et al. M1 Microglia-derived Exosomes Promote Activation of Resting Microglia and Amplifies Proangiogenic Effects through Irf1/miR-155-5p/Socs1 Axis in the Retina International Journal of Biological Sciences 2023-03-21 [PMID: 37063422] (WB)

Baddela Vs, Sharma A, Michaelis M, Vanselow J HIF1 driven transcriptional activity regulates steroidogenesis and proliferation of bovine granulosa cells Sci Rep 2020-03-03 [PMID: 32127571] (WB, Bovine)

Hauck PM, Wolf ER, Olivos DJ et al. Early-Stage Metastasis Requires Mdm2 and Not p53 Gain of Function. Mol. Cancer Res. 2017-08-07 [PMID: 28784612] (Mouse)

Liu GQ, Wu HY, Xu J et al. Anti-apoptosis effects of vascular endothelial cadherin in experimental corneal neovascularization. Int J Ophthalmol 2015-01-01 [PMID: 26682152]

Weber NC, Riedemann I, Smit KF et al. Plasma from human volunteers subjected to remote ischemic preconditioning protects human endothelial cells from hypoxia-induced cell damage Basic Res. Cardiol. 2015-03-01 [PMID: 25716080] (WB, Human)

Details:
HIF-1 alpha antibody was used for WB on lysates of human umbilical vein endothelial cells /HUVECs which were treated or not with remote ischemic preconditioning/RIPC-plasma under hypoxia conditions (Fig. 3)

Huang Y, Zitta K, Bein B et al. An insert-based enzymatic cell culture system to rapidly and reversibly induce hypoxia: investigations of hypoxia-induced cell damage, protein expression and phosphorylation in neuronal IMR-32 cells. Dis Model Mech. 2013-09-25 [PMID: 24046359] (WB, Human)

Vaithilingam V, Quayum N, Joglekar MV et al. Effect of alginate encapsulation on the cellular transcriptome of human islets. Biomaterials. 2011-09-01 [PMID: 21889795] (WB, Human)

Procedures

Western Blot protocol for HIF-1 alpha Antibody (NBP1-02160)
HIF-1 alpha Antibody:
Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 37 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-HIF-1 alpha primary antibody (NBP1-02160) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

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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.

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