Product Datasheet

ARNT/HIF-1 beta Antibody
NB100-124SS

Unit Size: 0.025 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

Reviews: 2 Publications: 77

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Updated 6/15/2014 v.20.1

NB100-124SS

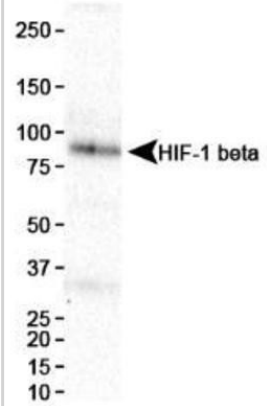
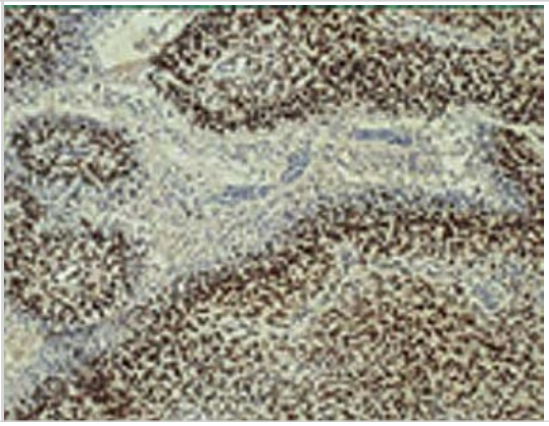
ARNT/HIF-1 beta Antibody (H1beta234)

Product Information	
Unit Size	0.025 ml
Concentration	1.4 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	H1beta234
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	1 X PBS
Target Molecular Weight	92 kDa

Product Description	
Host	Mouse
Gene ID	405
Gene Symbol	ARNT
Species	Human, Mouse, Rat, Bovine, Ferret, Primate, Sheep
Species Reactivity	Human, primate, bovine, sheep, mouse, rat and ferret.
Immunogen	Fusion protein containing amino acids 496-789 of human HIF-1 beta. [UniProt# P27540]

Product Application Details	
Applications	Western Blot, Chromatin Immunoprecipitation, Gel Super Shift Assays, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Chromatin Immunoprecipitation 1:10-1:500, Gel Super Shift Assays, Immunocytochemistry/Immunofluorescence, Immunohistochemistry 1:100, Immunohistochemistry-Paraffin 1:100, Immunoprecipitation, Western Blot 1:500
Application Notes	This HIF-1 beta (H1beta234) antibody is useful for Western Blot, Immunohistochemistry on paraffin-embedded sections and Chromatin Immunoprecipitation. By Western blot a band at approximately 92 kDa is seen. Use in Gel Shift Super Assay reported in scientific literature (PMID: 11325839).Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID 25343232)

Images

Western Blot: HIF-1 beta Antibody (H1beta234) [NB100-124] - Analysis of HIF-1 beta in HeLa nuclear extract.	
Immunohistochemistry: HIF-1 beta Antibody (H1beta234) [NB100-124] - Immunohistochemical staining of human glioblastoma multi-forme utilizing anti-HIF-1 Beta.	

Publications

Xiang L, Gilkes DM, Hu H et al. Hypoxia-inducible factor 1 mediates TAZ expression and nuclear localization to induce the breast cancer stem cell phenotype. Oncotarget. 2014 [PMID: 25587023] (ChIP, Human)

Kim KH, Kim D, Park JY et al. NNC 55-0396, a T-type Ca(2+) channel inhibitor, inhibits angiogenesis via suppression of hypoxia-inducible factor-1alpha signal transduction. J. Mol. Med. 2014 Dec 04 [PMID: 25471482] (WB, Human)

Su Ej, Xin H, Yin P et al. Impaired fetoplacental angiogenesis in growth-restricted fetuses with abnormal umbilical artery Doppler velocimetry is mediated by aryl hydrocarbon receptor nuclear translocator (ARnT). J. Clin. Endocrinol. Metab. 2014 Oct 24 [PMID: 25343232] (WB, ICC/IF, IHC-P, Human)

Hu H, Takano N, Xiang L et al. Hypoxia-inducible factors enhance glutamate signaling in cancer cells. Oncotarget 2014 Oct 15 [PMID: 25326682] (ChIP, Human)

Peng YJ, Yuan G, Khan S et al. Regulation of Hypoxia Inducible Factor-alpha Isoforms and Redox State By Carotid Body Neural Activity in Rats. J. Physiol. (Lond.). 2014 Jun 27 [PMID: 24973414] (WB, Rat)

Wang T, Gilkes DM, Takano N et al. Hypoxia-inducible factors and RAB22A mediate formation of microvesicles that stimulate breast cancer invasion and metastasis. Proc Natl Acad Sci U S A. 2014 Jun 17 [PMID: 24938788] (ChIP, Human)

Chaturvedi P, Gilkes DM, Takano N, Semenza GL. Hypoxia-inducible factor-dependent signaling between triple-negative breast cancer cells and mesenchymal stem cells promotes macrophage recruitment. Proc Natl Acad Sci U S A. 5/5/2014 [PMID: 24799675] (ChIP, Human)

Zhang J, Ma WY. Nerve growth factor regulates the expression of vascular endothelial growth factor in human HaCaT keratinocytes via PI3K/mTOR pathway. Genet. Mol. Res. 1/24/2014 [PMID: 24615084] (WB, Human)

Sena JA, Wang L, Pawlus MR. HIFs Enhance the Transcriptional Activation and Splicing of Adrenomedullin. Mol. Cancer Res. 2014 Feb 13 [PMID: 24523299] (WB, Human)

Takano N, Peng YJ, Kumar GK et al. Hypoxia-inducible factors regulate human and rat cystathionine B-synthase gene expression. Biochem J 2013 Dec 12 [PMID: 24328859] (ChIP, Human, Rat)

Gilkes DM, Xiang L, Lee SJ et al. Hypoxia-inducible factors mediate coordinated RhoA-ROCK1 expression and signaling in breast cancer cells. Proc Natl Acad Sci U S A 2014 Jan 21 [PMID: 24324133] (ChIP, Human)

Suzuki K, Nishi K, Takabuchi S et al. Differential roles of prostaglandin E-type receptors in activation of hypoxia-inducible factor 1 by prostaglandin E1 in vascular-derived cells under non-hypoxic conditions. PeerJ. 2013 Nov 28 [PMID: 24349900] (WB, Human)

More publications at http://www.novusbio.com/NB100-124

Procedures

Protocol specific for HIF-1 beta Antibody (NB100-124)
Western Blot Procedure

1. Resolve aliquots (15 mg) of induced nuclear protein extracts on a SDS/6% polyacrylamide gel.
2. Transfer to nitrocellulose membranes in 20 mM Tris-HCl (pH 8.0)/150 mM glycine/20% (vol/vol) methanol.
3. Block membranes for 1.5 hours with 1X western wash buffer containing 5% non-fat dry milk (NFDM).
4. Incubate membranes for 1.5 hours at room temperature (RT) in NB 100-124 diluted 1:1,500 in 1X western wash/5% NFDM.
5. Wash with 1X western wash for 35 minutes at RT (1 X 15 minutes, 2 X 10 minutes).
6. Incubate membranes with HRP conjugated anti-Mouse IgG for 1 hour (RT) in 1X western wash/5% NFDM.
7. Wash with 1X western wash for 35 minutes at RT (1 X 15 minutes, 2 X 10 minutes).
8. Drain membrane and place on saran wrap.
9. Using Amersham ECL Kit, mix equal volumes of two reagents. Pour over membrane (protein side facing up). Let solution sit on membrane for 15-20 seconds.
10. Drain membrane and place on new saran wrap
11. Wrap up membrane and expose to film.
12. Develop accordingly.

10X Western wash
24.2g Tris
80g NaCl Tween-20 to 1% pH 7.6 and QS to 4L
Stripping buffer
100 mM BME
2% SDS
62.5 mM Tris (pH 6.7)
Incubate membrane for 30 minutes at 56 degrees C. Wash membrane 15 minutes with several changes of 1X western wash.

Notes: If hypoxia treatment is not hypoxic enough (less than 2% oxygen to get an induction), signal will be absent. Also, if the harvest time is too slow or there are not enough protease inhibitors, etc., the induced protein will be rapidly lost as HIF-1beta has a very short half-life. Whole cell extracts or nuclear extracts of hypoxia induced cell lines (293, Hep3B, COS7, Hepa) are useful as a positive control. Nuclear Extract

Preparation Reference: Wang and Semenza. "Purification and Characterization of Hypoxia-Inducible Factor 1". Journal of Biological Chemistry. 270(3): 1230-1237, 1995.

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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.