

# Product Datasheet

## **EGLN3/PHD3 Antibody** **NB100-139SS**

Unit Size: 0.025 ml

Store at 4C. Do not freeze.

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Updated 6/15/2014 v.20.1

**NB100-139SS**

EGLN3/PHD3 Antibody

Product Information	
Unit Size	0.025 ml
Concentration	1 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	28 kDa

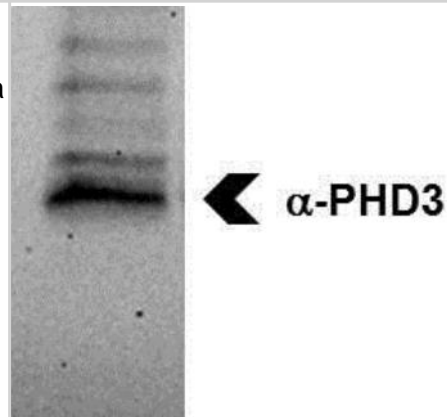
Product Description	
Host	Rabbit
Gene ID	112399
Gene Symbol	EGLN3
Species	Human, Mouse, Rat
Species Reactivity	Human and rat. Mouse reactivity reported in scientific literature (PMID: 24037093)
Immunogen	Synthetic peptide corresponding to residues between 50-100 of human PHD3/HIF Prolyl Hydroxylase 3 using the numbering given in entry NP_071356.1 (GeneID 112399).

Product Application Details	
Applications	Western Blot, Electron Microscopy, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Electron Microscopy, Immunocytochemistry/Immunofluorescence 1:500, Immunohistochemistry-Paraffin, Immunoprecipitation, Western Blot 1:1000-1:2000
Application Notes	This PHD3/HIF Prolyl Hydroxylase 3 antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot, where a band can be seen at 27-30 kDa. Use in Immunohistochemistry-Paraffin and Electron Microscopy reported in scientific literature (PMID 17003483) Use in chromatin immunoprecipitation reported in scientific literature (PMID 24367580)

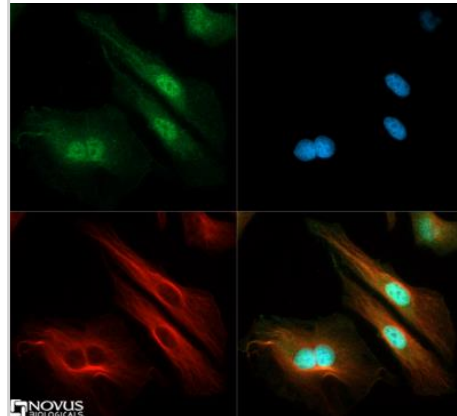


## Images

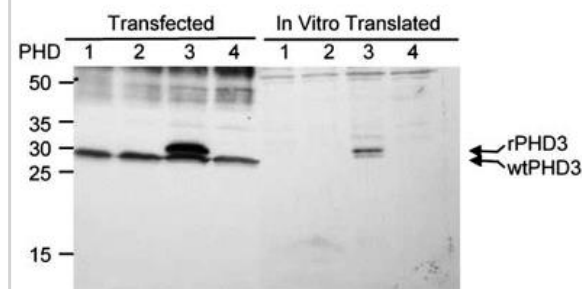
Western Blot: PHD3/HIF Prolyl Hydroxylase 3 Antibody [NB100-139] - HIF Prolyl Hydroxylase 3 Antibody [NB100-139] - Western Blot analysis of HeLa lysates using NB100-139. Image courtesy of Dr Gregg Semenza (The Johns Hopkins University School of Medicine, Baltimore, MD USA)



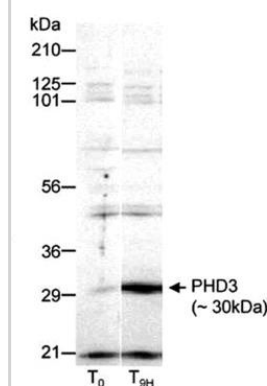
Immunocytochemistry/Immunofluorescence: PHD3/HIF Prolyl Hydroxylase 3 Antibody [NB100-139] - PHD3/HIF Prolyl Hydroxylase 3 antibody was tested in HeLa cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



PHD3/HIF Prolyl Hydroxylase 3 Antibody [NB100-139] - Detection of Human PHD3 by Western Blot application in lysate from cells that were transiently transfected with PHD1, PHD2, PHD3 or PHD4 constructs or in vitro translated PHD1, PHD2, PHD3, PHD4. Primary antibody PHD3 NB100-139 was used at a dilution of 1:1000 and blots were developed using chemiluminescence.



PHD3/HIF Prolyl Hydroxylase 3 Antibody [NB100-139] - Detection of PHD3 by Western Blot application in lysate from Rat cells before or 9 hours after inducing hypoxia. Primary antibody PHD3 NB100-139 was used at a dilution of 1:5000 and blots were developed using chemiluminescence.



## Publications

Vogler M, Zieseniss A, Hesse AR et al. Pre- and post-conditional inhibition of prolyl-4-hydroxylase domain enzymes protects the heart from an ischemic insult Pflugers Arch. 2015 Jan 13 [PMID: 25578858] (IHC-P, Mouse)

### Details:

PHD3/HIF Prolyl Hydroxylase 3 antibody used at 1:10,000 dilution for IHC-P application on heart sections from C57BL/6 mice after 1, 6, and 24 h of treatment (40-fold magnification) with ICA, a specific PHD inhibitor 2-(1-chloro-4-hydroxyisoquinoline-3-carboxamido) acetate - two doses of 40 mg/kg BW ICA or vehicle i.p., either 6 and 1 h before myocardial infarction or 1 and 5 h after myocardial infarction (Fig 3).

Place TL, Nauseef JT, Peterson MK et al. Prolyl-4-Hydroxylase 3 (PHD3) Expression Is Downregulated during Epithelial-to-Mesenchymal Transition. PLoS One 2013 Dec 18 [PMID: 24367580] (WB, IP, Human)

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)

Taniguchi CM, Finger EC, Krieg AJ et al. Cross-talk between hypoxia and insulin signaling through Phd3 regulates hepatic glucose and lipid metabolism and ameliorates diabetes. Nat Med. 2013 Oct [PMID: 24037093] (WB, Mouse)

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)

Galan-Cobo A, Sanchez-Silva R, Serna A et al. Cellular overexpression of aquaporins slows down the natural HIF-2 $\alpha$  degradation during prolonged hypoxia. Gene. 2013 Jul 13 [PMID: 23545307] (WB, Rat)

Cervera AM, Apostolova N, Luna-Crespo F et al. An alternatively spliced transcript of the PHD3 gene retains prolyl hydroxylase activity. Cancer Lett 2006 Feb 20 [PMID: 16473674]

Hogel H, Rantanen K, Jokilehto T et al. Prolyl hydroxylase PHD3 enhances the hypoxic survival and G1 to S transition of carcinoma cells. PLoS One. 2011 [PMID: 22087251] (WB, Human)

Luukkaa M, Jokilehto T, Kronqvist P, Vahlberg T, Grenman R, Jaakkola P, Minn H. The Cellular Oxygen Sensor PHD2 in Cancer Growth 2011. Int J Radiat Biol85(10):900-8. 2009 [PMID: 19639506]

Xie L, Xiao K, Whalen EJ et al. Oxygen-Regulated  $\beta$ 2-Adrenergic Receptor Hydroxylation by EGLN3 Ubiquitylation by pVHL. Sci Signal;2(78):ra33-. 2009 [PMID: 19584355]

Wong W, Goehring AS, Kapiloff MS et al. mAKAP Compartmentalizes Oxygen-Dependent Control of HIF-1 $\alpha$ . Sci Signal;1(51):ra18-. 2008 [PMID: 19109240]

Li N et al. Expression actions of HIF prolyl-4-hydroxylase in the rat kidneys. Am J Physiol Renal Physiol 292: F207 - F216. 2007 [PMID: 16885149]

More publications at <http://www.novusbio.com/NB100-139>





### **Novus Biologicals USA**

8100 Southpark Way, A-8  
Littleton, CO 80120  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
novus@novusbio.com

### **Novus Biologicals Canada**

461 North Service Road West, Unit B37  
Oakville, ON L6M 2V5  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada@novusbio.com

### **Novus Biologicals Europe**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: technical@novusbio.com  
Orders: orders@novusbio.com  
General: novus@novusbio.com

### **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).**

