

Product Datasheet

HIF Prolyl Hydroxylases Antibody Pack NB100-903PHD

Unit Size: 6 Vials

Store at 4C. Do not freeze.

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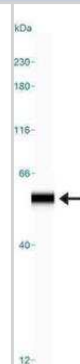
NB100-903PHD**HIF Prolyl Hydroxylases Antibody Pack**

Product Information	
Unit Size	6 Vials
Concentration	Concentration of individual antibodies may be found on the vial label. If unlisted please contact technical services.
Storage	Store at 4C. Do not freeze.
Preservative	0.01% Sodium Azide
Purity	Immunogen affinity purified
Product Description	
Description	This pack contains 1 vial each of: NB100-2219SS (0.025 mL), NB100-303SS (0.025 mL), NB100-139SS (0.025 mL), NB100-138SS (0.025 mL), NB100-295SS (0.025 mL), NB100-137SS (0.025 mL).
Host	Rabbit
Gene ID	54583
Gene Symbol	EGLN1
Species	Human, Mouse, Rat
Reactivity Notes	All: Homo sapiens. NB100-137 does not react with mouse. NB100-138 does not react with mouse and mixed results in rat. NB100-139 does not react with mouse but reacts with rat. NB100-295 does not react with mouse and is unknown in rat. NB100-303 reacts with mouse. Other species have not been tested.
Specificity/Sensitivity	See individual datasheets.
Immunogen	The exact amino acid range is proprietary. General Immunogen area: NB100-137 (LocusLink - 54583 Region - N-Terminus), NB100-138 (LocusLink - 54583 Region - C-Terminus), NB100-139 (LocusLink - 112399 Region - Internal), NB100-295 (LocusLink - 54681 Region - C-terminus), NB100-303 (LocusLink - 112399 Region - C-terminus), NB100-2219 (mouse amino acid range 300-400).
Kit Components	NB100-137: EGLN1/PHD2 Antibody, NB100-138, NB100-303: EGLN3/PHD3 Antibody - BSA Free, NB100-2219: EGLN1/PHD2 Antibody - BSA Free, NB100-295: PHD4/HIF Prolyl Hydroxylase 4 Antibody
Product Application Details	
Applications	Western Blot, Simple Western, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunocytochemistry, Knockdown Validated
Recommended Dilutions	Western Blot, Simple Western, Flow Cytometry, Immunohistochemistry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin, Immunocytochemistry, Knockdown Validated
Application Notes	These antibodies can be used for Western blot at a dilution range of 1:500 - 1:1,000. Other applications are not confirmed. See individual datasheets for validated applications.

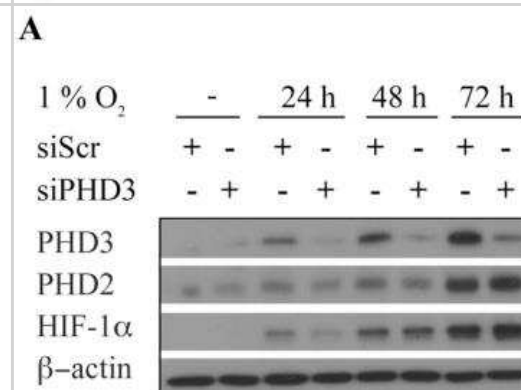


Images

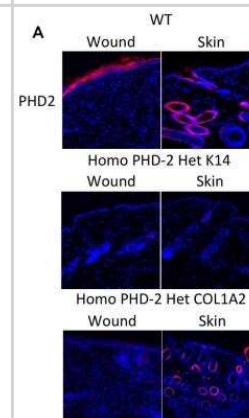
Simple Western: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Simple Western lane view shows a specific band for PHD2/HIF Prolyl Hydroxylase 2 in 0.5 mg/mL of Hypoxic HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. EGLN1/PHD2 Antibody [NB100-137]



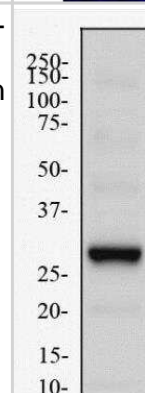
Knockdown Validated: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - PHD3 is required for SCC cell survival in prolonged hypoxia. PHD3 is induced in hypoxia. Knock-down of PHD3 expression with siRNA (siPHD3) is specific and does not affect PHD2 or HIF-1 alpha expression. siScr = scrambled control siRNA. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0014617](https://doi.org/10.1371/journal.pone.0014617)), licensed under a CC-BY license. EGLN3/PHD3 Antibody [NB100-139]



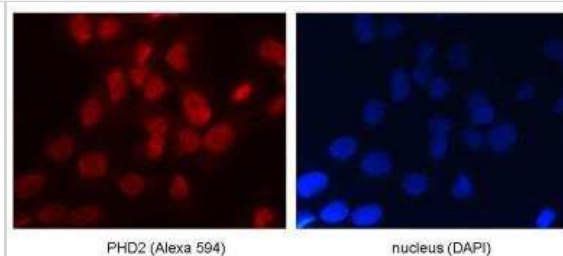
Immunohistochemistry: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Immunofluorescence of wounded tissue and normal unwounded skin. Representative images for immunofluorescent staining of PHD-2 on healed wounded skin and adjacent normal unwounded skin of wild type, heterozygous K14-Cre/homozygous floxed PHD-2, and heterozygous Col1 alpha2-Cre-ER/homozygous floxed PHD-2 mice at 400x magnification. Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0093373](https://doi.org/10.1371/journal.pone.0093373)), licensed under a CC-BY license. EGLN1/PHD2 Antibody [NB100-2219]



Western Blot: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Whole cell protein from MEF cells was separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2 ug/mL anti-EGLN3/PHD3 in 1% milk, and detected with an anti-rabbit HRP secondary antibody using chemiluminescence. EGLN3/PHD3 Antibody [NB100-303]



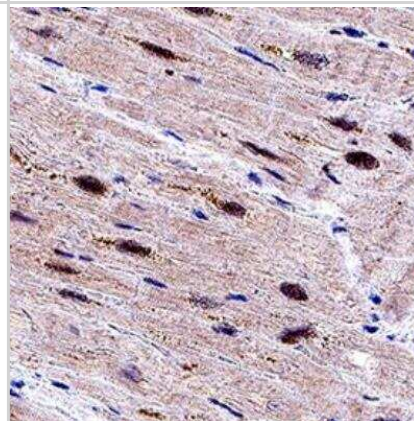
Immunocytochemistry: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - EGLN1/PHD2 Antibody [NB100-137] - Staining of endogenous PHD2 in U2OS cells. ICC image submitted by a verified customer review. EGLN1/PHD2 Antibody [NB100-137]



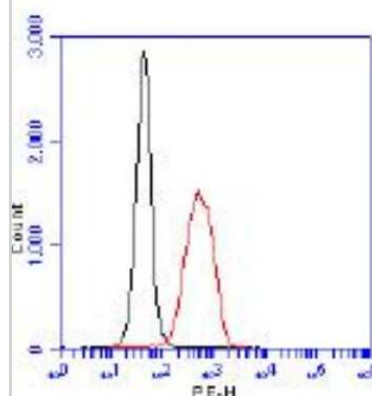
PHD2 (Alexa 594)

nucleus (DAPI)

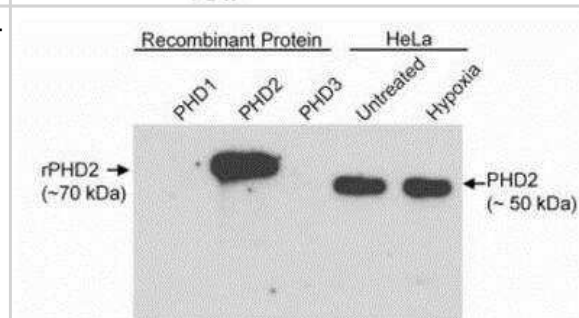
Immunohistochemistry: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - PHD3 was detected in immersion fixed paraffin-embedded sections of human heart using Rabbit Anti-Human EGLN3 polyclonal Antibody (NB100-303) at 5 ug/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte(TM) HRP Polymer Antibody (VC003). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei. EGLN3/PHD3 Antibody [NB100-303]



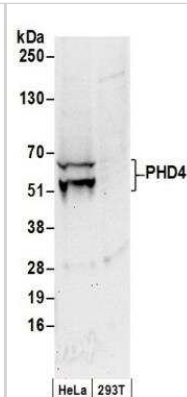
Flow Cytometry: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Detection of PHD2. 1 million Jurkat cells were fixed, permeabilized, and stained with 3.0 ug/mL anti-PHD2 NB100-137 in a 150 uL reaction. Isotype control (black), anti-MLL1 (red).



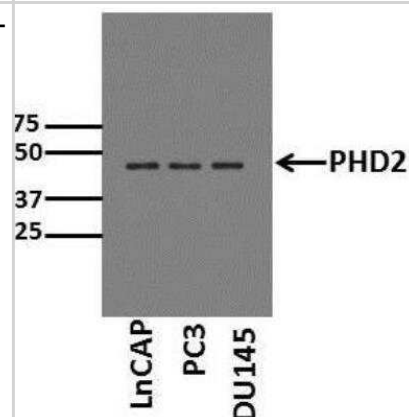
Western Blot: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Detection of Human PHD2 by Western blot. Samples: Recombinant epitope-tagged PHD1, PHD2 or PHD3 (10 ng/lane) or whole cell lysate from HeLa cells, stained with rabbit anti-PHD2 used at 1 ug/mL. EGLN1/PHD2 Antibody [NB100-138]



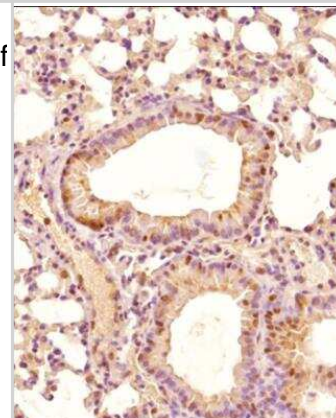
Western Blot: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Whole cell lysate (50 ug) from HeLa and 293T cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-PHD4 antibody used for WB at 0.4 ug/mL. Detection: Chemiluminescence with an exposure time of 30 seconds. PHD4/HIF Prolyl Hydroxylase 4 Antibody [NB100-295]



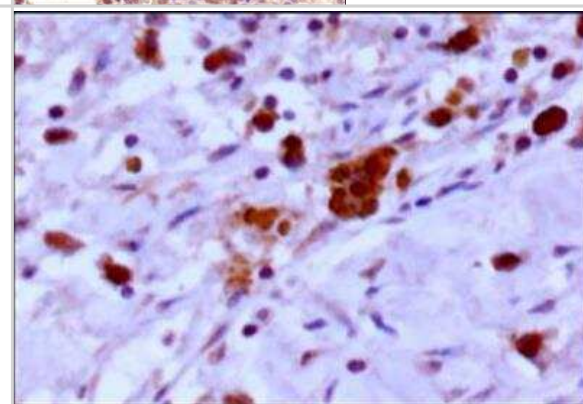
Western Blot: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Analysis of PHD2 expression in human prostate cancer cell lines. WB image submitted by a verified customer review. EGLN1/PHD2 Antibody [NB100-137]



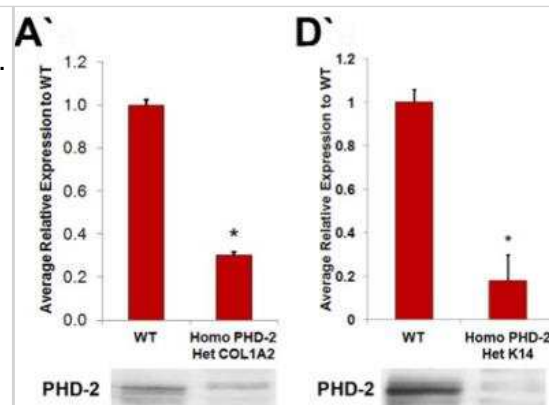
Immunohistochemistry: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Analysis of a FFPE mouse lung section using 1:200 dilution of EGLN1/PHD2 antibody. The staining was developed using HRP conjugated anti-rabbit secondary antibody and DAB reagent. The antibody generated a specific staining in the cytoplasm and nuclei of alveolar as well as bronchiolar epithelial cells. Cytoplasmic staining was observed in almost all cells while the nuclear positivity was seen in a subset of cells only. EGLN1/PHD2 Antibody [NB100-2219]



Immunohistochemistry: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - Analysis of a formalin fixed tissue section of human renal cell carcinoma (clear cell type) using rabbit polyclonal EGLN3/PHD3 antibody with HRP-DAB detection and hematoxylin counterstaining. The antibody generated a strong nuclear staining of PHD3 primarily in the cancer cells while the stromal cells were largely negative for this protein. EGLN3/PHD3 Antibody [NB100-139]



Knockdown Validated: HIF Prolyl Hydroxylases Antibody Pack [NB100-903PHD] - In vitro analysis of PHD-2 knockout and protein quantification. Western blot data for PHD-2 knockout in fibroblasts of heterozygous Col1 alpha2-Cre-ER/homozygous floxed PHD-2 mice compared to wild type mice (* $p < 0.05$). D') Western blot data for PHD-2 knockout in keratinocytes of heterozygous K14-Cre/homozygous floxed PHD-2 mice compared to wild type mice (* $p < 0.05$). Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0093373](https://doi.org/10.1371/journal.pone.0093373)), licensed under a CC-BY license. EGLN1/PHD2 Antibody [NB100-2219]



Publications

- Siddiq A, Aminova LR, Troy CM et al. Selective Inhibition of Hypoxia-Inducible Factor (HIF) Prolyl-Hydroxylase 1 Mediates Neuroprotection against Normoxic Oxidative Death via HIF- CREB-Independent Pathways. *J Neurosci*;29 (27):8828-8838. 2009-01-01 [PMID: 19587290]
- Loinard C, Ginouves A, Vilar J et al. Inhibition of prolyl hydroxylase domain proteins promotes therapeutic revascularization. *Circulation* 2009-07-01 [PMID: 19546390]
- Schultz K, Murthy V, Tatro JB et al. Prolyl hydroxylase 2 deficiency limits proliferation of vascular smooth muscle cells by hypoxia-inducible factor-1{alpha}-dependent mechanisms. *Am J Physiol Lung Cell Mol Physiol*;296(6):L921-927. 2009-01-01 [PMID: 19304911]
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- Kondo, S et al. EBV latent membrane protein 1 up-regulates hypoxia-inducible factor 1alpha through Siah1-mediated down-regulation of prolyl hydroxylases 1 and 3 in nasopharyngeal epithelial cells. *Cancer Res*;66(20):9870-7. 2006-10-15 [PMID: 17047048]
- McMahon, S et al. PROTEIN SYNTHESIS, POST-TRANSLATION MODIFICATION, DEGRADATION: TGF beta 1 induces HIF-1 stabilization through selective inhibition of PHD2 expression. *J Biol Chem*, 10.1074/jbc.M604507200. 2006-01-01 [PMID: 16815840]

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