Product Datasheet

EGLN3/PHD3 Antibody - BSA Free
NB100-139

Unit Size: 0.1 ml

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

Reviews: 2  Publications: 50

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Updated 9/19/2023 v.20.1

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### Product Information

<table>
<thead>
<tr>
<th><strong>Unit Size</strong></th>
<th>0.1 ml</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concentration</strong></td>
<td>1 mg/ml</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
</tr>
<tr>
<td><strong>Preservative</strong></td>
<td>0.05% Sodium Azide</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td><strong>Buffer</strong></td>
<td>PBS</td>
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<tr>
<td><strong>Target Molecular Weight</strong></td>
<td>28 kDa</td>
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</table>

### Product Description

- **Host**: Rabbit
- **Gene ID**: 112399
- **Gene Symbol**: EGLN3
- **Species**: Human, Mouse, Rat
- **Reactivity Notes**: 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, Chromatin Immunoprecipitation, Electron Microscopy, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated, Mass Spectrometry
- **Recommended Dilutions**: Western Blot 1:1000-1:2000, Chromatin Immunoprecipitation reported in scientific literature (PMID 24367580), Immunohistochemistry 1:250-1:1000, Immunocytochemistry/Immunofluorescence 1:500, Immunoprecipitation, Immunohistochemistry-Paraffin 1:250-1:1000, Electron Microscopy reported in scientific literature (PMID 17003483), Mass Spectrometry, Knockdown Validated
- **Application Notes**: In WB, PHD3 band can be seen at 27-30 kDa molecular weight range. Mass Spectrometry reported in scientific literature (PMID:34426491).

### Images

Knockdown Validated: EGLN3/PHD3 Antibody [NB100-139] - 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), licensed under a CC-BY license.

*Image showing Western Blot results with bands for PHD3, PHD2, HIF-1α, and β-actin under different oxygen conditions.*
Immunohistochemistry-Paraffin: EGLN3/PHD3 Antibody [NB100-139] - 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.


Immunocytochemistry/Immunofluorescence: EGLN3/PHD3 Antibody [NB100-139] - EGLN3/PHD3 antibody was tested in HeLa cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).

Knockdown Validated: EGLN3/PHD3 Antibody [NB100-139] - BxPC3 cells stably transduced with retrovirus containing PHD3Wt (BxPC3-Wt), Vector (BxPC3-Vec) or anti-PHD3 shRNA (BxPC3-KD) were harvested for RNA and protein following 24 hours exposure to normoxia (21% O2) or hypoxia (1% O2). Whole cell lysate from BxPC3-Wt, BxPC3-Vec and BxPC3-KD cells following 24 hours exposure to normoxia (N) or hypoxia (H) was resolved by SDS-PAGE and blotted for actin (top) and PHD3 (bottom). PHD3 band intensity was quantified relative to actin in each lane and then normalized to BxPC3-Vec (N). Relative band intensity is indicated below the figure. NS = non-specific band running just above PHD3 band. Data is representative of >3 biological replicates. Image collected and cropped by CiteAb from the following publication (//doi.org/10.1371/journal.pone.0083021), licensed under a CC-BY license.
Western Blot: EGLN3/PHD3 Antibody [NB100-139] - The HIF-1 response is not impaired in prostate and breast carcinoma cell lines that lack PHD3. Melanoma, breast and prostate cancer cell lines with methylated PHD3 promoters (MB-435, PC-3) and non-methylated promoters (MCF7, DU 145) were subjected to hypoxia (1% O2) or normoxia for 24 hours. Thirty micrograms of whole cell lysate was western blotted for the presence of PHD3; actin was used as a loading control. Image collected and cropped by CiteAb from the following publication (https://doi.org/10.1371/journal.pone.0014617), licensed under a CC-BY license.

Western Blot: EGLN3/PHD3 Antibody [NB100-139] - Analysis of HeLa lysates using NB100-139. Image courtesy of Dr Gregg Semenza (The Johns Hopkins University School of Medicine, Baltimore, MD USA)
Publications


Seike K, Kiledal A, Fujiwara H et al. Ambient oxygen levels regulate intestinal dysbiosis and GVHD severity after allogeneic stem cell transplantation Immunity 2023-02-01 [PMID: 36736321] (WB, Mouse)

Details:
Dilution used 1:1000


Details:
Dilution used in WB 1:500


Ciminera AK, Shuck SC, Termini J Elevated glucose increases genomic instability by inhibiting nucleotide excision repair Life science alliance 2021-10-01 [PMID: 34426491] (MS, Human)

Nasteska D, Cuozzo F, Viloria K Et Al. Prolyl-4-hydroxylase 3 maintains beta-cell glucose metabolism during fatty acid excess in mice JCI insight 2021-07-15 [PMID: 34264866] (IHC-P)

Ju S, Lim L, Wi K et al. LRP5 Regulates HIF-1 alpha Stability via Interaction with PHD2 in Ischemic Myocardium International Journal of Molecular Sciences 2021-06-19 [PMID: 34205318] (IP, Rat)


Shi M, Dai WQ, Jia RR et al. APCCDC20-mediated degradation of PHD3 stabilizes HIF-1α and promotes tumorigenesis in hepatocellular carcinoma Cancer Lett 2020-10-09 [PMID: 33039559] (WB, IP, Mouse)


More publications at http://www.novusbio.com/NB100-139
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 100% guarantee, please visit www.novusbio.com/guarantee

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Products Related to NB100-139

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<tr>
<th>Product Code</th>
<th>Description</th>
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<tr>
<td>NBL1-10156</td>
<td>EGLN3/PHD3 Overexpression Lysate</td>
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<tr>
<td>HAF008</td>
<td>Goat anti-Rabbit IgG Secondary Antibody [HRP]</td>
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<tr>
<td>NB7160</td>
<td>Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]</td>
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<tr>
<td>NBP2-24891</td>
<td>Rabbit IgG Isotype Control</td>
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