Product Datasheet

EGLN1/PHD2 Antibody (366G/76/3)
NBP1-30328

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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Publications: 7

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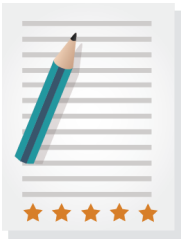
Updated 9/25/2023 v.20.1



NBP1-30328

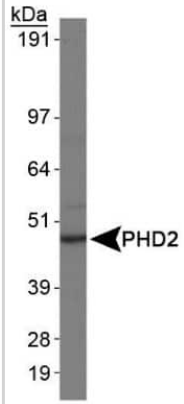
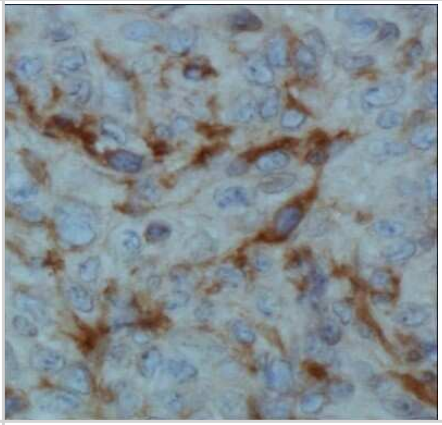
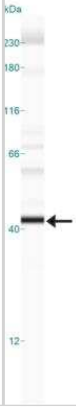
EGLN1/PHD2 Antibody (366G/76/3)

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	366G/76/3
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	Tris-Glycine, 0.15 M NaCl
Target Molecular Weight	46 kDa

Product Description	
Host	Mouse
Gene ID	54583
Gene Symbol	EGLN1
Species	Human, Mouse, Rat
Reactivity Notes	Use in Rat reported in scientific literature (PMID:29471019).
Immunogen	This EGLN1/PHD2 antibody was developed against a peptide within residues 1-50 of human PHD2/HIF Prolyl Hydroxylase 2. [Swiss-Prot# Q9GZT9]

Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.5 - 2.0 ug/mL, Simple Western 1:50, Immunohistochemistry 1:400, Immunohistochemistry-Paraffin 1:400
Application Notes	This HIF Prolyl Hydroxylase 2 antibody is useful for Immunohistochemistry paraffin embedded sections, and Western Blot analysis where a band can be seen at approx. 46 kDa. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. 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

Western Blot: EGLN1/PHD2 Antibody (366G/76/3) [NBP1-30328] - Aanalysis in HeLa whole cell extracts using EGLN1/PHD2 antibody NBP1-30328.	
Immunohistochemistry: EGLN1/PHD2 Antibody (366G/76/3) [NBP1-30328] - Analysis of PHD2 in human renal cancer using DAB with hematoxylin counterstain.	
Simple Western: EGLN1/PHD2 Antibody (366G/76/3) [NBP1-30328] - Lane view shows a specific band for EGLN1/PHD2 in 0.5 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.	

Publications

Pavlakis D, Kampantais S, Gkagkalidis K et al. Hypoxia-Inducible Factor 2a Expression Is Positively Correlated With Gleason Score in Prostate Cancer Technology in cancer research & treatment 2021-03-23 [PMID: 33752529] (IHC-P, Human)

Capitanio D, Fania C et al. TCA cycle rewiring fosters metabolic adaptation to oxygen restriction in skeletal muscle from rodents and humans. Sci Rep 2017-08-29 [PMID: 28852047] (WB, Mouse)

Rane A, Rajagopalan S et al. Hsp90 Co-chaperone p23 contributes to dopaminergic mitochondrial stress via stabilization of PHD2: Implications for Parkinson's disease. Neurotoxicology 2018-01-03 [PMID: 29471019] (WB, Rat)

Soilleux EJ, Turley H, Tian YM et al. Use of novel monoclonal antibodies to determine the expression and distribution of the hypoxia regulatory factors PHD-1, PHD-2, PHD-3 and FIH in normal and neoplastic human tissues. Histopathology. 2005-12-01 [PMID: 16324198] (IHC-P, Human)

Stolze IP, Tian YM, Appelhoff RJ et al. Genetic analysis of the role of the asparaginyl hydroxylase factor inhibiting hypoxia-inducible factor (FIH) in regulating hypoxia-inducible factor (HIF) transcriptional target genes [corrected]. J Biol Chem. 2004-10-01 [PMID: 15302861] (WB, Human)

Appelhoff RJ et al. Differential function of the prolyl hydroxylases PHD1, PHD2, and PHD3 in the regulation of hypoxia-inducible factor. J Bil Chem 279: 38458-38465. 2004-01-01 [PMID: 15247232] (WB, Human)

Jubb AM, Turley H, Moeller HC, Steers G, Han C, Li JL, Leek R, Tan EY, Singh B, Mortensen NJ, Noguera-Troise I, Pezzella F, Gatter KC, Thurston G, Fox SB, Harris AL. Expression of delta-like ligand 4 (Dll4) and markers of hypoxia in colon cancer. Br J Cancer;101(10):1749-57. 2009-11-17 [PMID: 19844231] (IHC-P, Human)

Procedures

Western Blot protocol specific for PHD2 Antibody (NBP1-30328)
EGLN1/PHD2 Antibody (366G/76/3): https://www.novusbio.com/products/egln1-phd2-antibody-366g-76-3_nbp1-30328
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted 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 three 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.

**Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunohistochemistry-Frozen Protocol for EGLN1/PHD2 Antibody (NBP1-30328)
EGLN1/PHD2 Antibody (366G/76/3): https://www.novusbio.com/products/egln1-phd2-antibody-366g-76-3_nbp1-30328
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

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Products Related to NBP1-30328

NB800-PC1	HeLa Whole Cell Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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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