Product Datasheet

Nbs1 Antibody - BSA Free

NBP1-06609

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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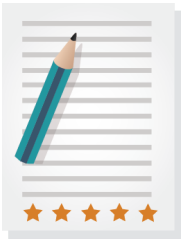
Updated 9/9/2025 v.20.1



NBP1-06609

Nbs1 Antibody - BSA Free

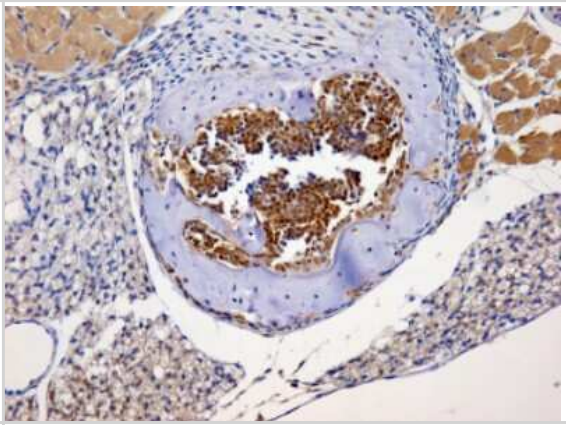
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS, 30% Glycerol
Target Molecular Weight	84 kDa

Product Description	
Description	Novus Biologicals Rabbit Nbs1 Antibody - BSA Free (NBP1-06609) is a polyclonal antibody validated for use in IHC and WB. Anti-Nbs1 Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	4683
Gene Symbol	NBN
Species	Human, Mouse
Reactivity Notes	Human reactivity reported in scientific literature (PMID: 21349997 and 30176843). Mouse reactivity reported in scientific literature.
Immunogen	Nbs1 Antibody was made to a synthetic peptide made to an internal portion of the mouse NBS1 protein (within residues 350-400). [Swiss-Prot# Q9R207]

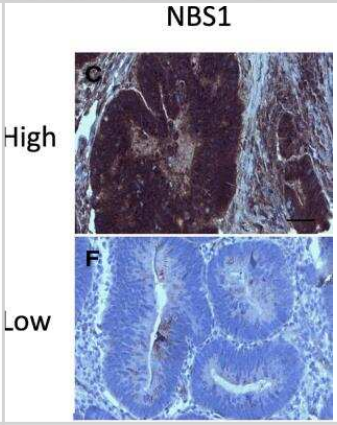
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry
Recommended Dilutions	Western Blot 2 ug/mL. Use reported in scientific literature, Immunohistochemistry 2 ug/mL, Immunohistochemistry-Paraffin reported in scientific literature (PMID 21349997; 30176843)
Application Notes	In Western blot a band is seen at ~97 kDa. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

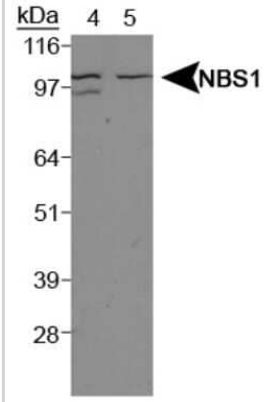
Immunohistochemistry-Paraffin: Nbs1 Antibody [NBP1-06609] - Staining of paraffin-embedded mouse bone marrow using Nbs1 Antibody [NBP1-06609].



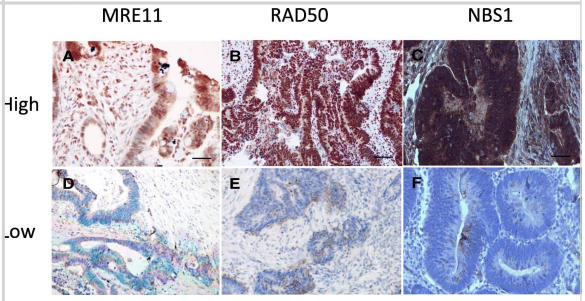
Immunohistochemistry: Nbs1 Antibody [NBP1-06609] - Immunohistochemical staining of NBS1 proteins. Representative examples of typical nuclear staining of NBS1(c) scored as high expression in tumor cells. Correspondingly, examples scored as low expression (f) is shown (40x magnification). Image collected and cropped by CiteAb from the following publication (bmccancer.biomedcentral.com/articles/10.1186/s12885-018-4776-9) licensed under a CC-BY license.



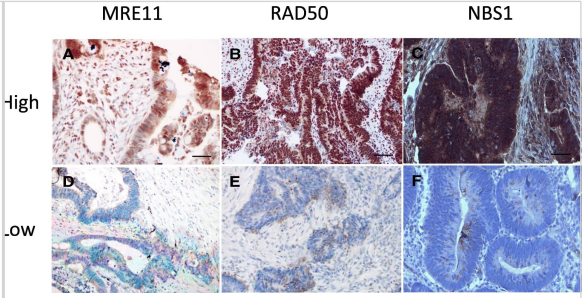
Western Blot: Nbs1 Antibody [NBP1-06609] - Analysis of Nbs1 in NIH/3T3 (Lane 4) and HeLa whole cell extract (Lane 5) with Nbs1 Antibody [NBP1-06609]. Observed molecular weight at ~99 kDa.



Immunohistochemical staining of MRE11, RAD50 and NBS1 proteins. Staining for each protein was scored as high or low as described in the Methods section. Representative examples of typical nuclear staining of MRE11 (a), RAD50 (b), and NBS1(c) scored as high expression in tumor cells. Correspondingly, examples of those scored as low expression for MRE11 (d), RAD50 (e), and NBS1 (f) are shown (40× magnification)



Immunohistochemistry: Nbs1 Antibody - BSA Free [NBP1-06609] - Immunohistochemical staining of MRE11, RAD50 & NBS1 proteins. Staining for each protein was scored as high or low as described in the Methods section. Representative examples of typical nuclear staining of MRE11 (a), RAD50 (b), & NBS1(c) scored as high expression in tumor cells. Correspondingly, examples of those scored as low expression for MRE11 (d), RAD50 (e), & NBS1 (f) are shown (40× magnification) Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30176843), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Ho V, Chung L, Singh A et al. Overexpression of the MRE11-RAD50-NBS1 (MRN) complex in rectal cancer correlates with poor response to neoadjuvant radiotherapy and prognosis. BMC Cancer 2018-09-03 [PMID: 30176843] (IHC-P, Human)

Nicholas C. Mouse Polyomavirus T Antigens: Directors of Cell Cycle Signaling. Thesis. 2015-01-01 (WB, Mouse)

Details:
NBS1 antibody was used for WB analysis of lysates from C57 MEFs that were infected or not with MPyVs RA, NG59, and 808A (withan UI mock-infected control) for 1.5 hours. The immunoblots were normalized to their respective tubulin loading control followed by normalization to the UI samples (Figure 7A and 7E).

Moeller BJ, Yordy JS, Williams MD et al. DNA repair biomarker profiling of head and neck cancer: Ku80 expression predicts locoregional failure and death following radiotherapy. Clin Cancer Res. 2011-04-01 [PMID: 21349997] (IHC-P, Human)

Della-Maria J, Zhou Y, Tsai M-S et al. hMre11/hRad50/Nbs1 and DNA ligase III{alpha}/XRCC1 act together in an alternative non-homologous end joining pathway. J Biol Chem. 2011-08-03 [PMID: 21816818]

Procedures

Western Blot Protocol for NPB1-06609 - NBS1 Antibody specific for NBS1 Antibody (NBP1-06609)
Nbs1 Antibody:
Procedure Guide for NPB1-06609 - NBS1 Antibody
Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 30 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% NFDM + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-NBS1 primary antibody (NBP1-06609) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG 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 [TBS + 0.1% Tween] 3 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 (Pierce ECL).

*Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

Immunohistochemistry-Paraffin protocol for Nbs1 Antibody (NBP1-06609)
Nbs1 Antibody:
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 dH2O three times for 5 minutes each.
2. Wash section in wash buffer (1X PBS/0.1% Tween-20 (1X PBST)) for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1X PBST, 5% goat serum) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul primary antibody diluted in 1X PBST, 5% goat serum to each section. 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 secondary antibody, diluted in 1X PBST, 5% goat serum. 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 Striptavidin-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 dH2O.
12. Counterstain sections in hematoxylin.
13. Wash sections in dH2O two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

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NB800-PC1	HeLa Whole Cell Lysate
NBP1-06609PEP	Nbs1 Antibody Blocking Peptide
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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