Product Datasheet

Nbs1 Antibody (Y112)
NB110-57272

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

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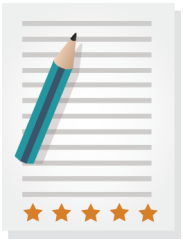

NB110-57272

Nbs1 Antibody (Y112)

Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	Y112
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Tissue culture supernatant
Buffer	59% PBS (pH 7.2), 0.05% BSA and 40% Glycerol
Target Molecular Weight	85 kDa

Product Description	
Host	Rabbit
Gene ID	4683
Gene Symbol	NBN
Species	Human, Mouse, Rat
Reactivity Notes	Cross reactivity determined by western blot only.
Immunogen	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) corresponding to Human p95 NBS1 aa 650-750 (C terminal).
Notes	Produced using Abcam's RabMab® technology. RabMab® technology is covered by the following U.S. Patents, No. 5,675,063 and/or 7,429,487.

Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000-10000, Flow Cytometry 1:1000, Immunohistochemistry 1:10 -1:500, Immunocytochemistry/Immunofluorescence 1:50, Immunoprecipitation 1:60, Immunohistochemistry-Paraffin 1:50
Application Notes	In Western blot this antibody detects a band at approximately 95 kDa. Immunofluorescence (PMID: 21470188)

Publications

Chen G, Zhang B, Xu H et al. Suppression of Sirt1 sensitizes lung cancer cells to WEE1 inhibitor MK-1775-induced DNA damage and apoptosis Oncogene 2017 Sep 04 [PMID: 28869605] (WB, Human)

Hartlerode AJ, Morgan MJ, Wu Y et al. Recruitment and activation of the ATM kinase in the absence of DNA-damage sensors. Nat. Struct. Mol. Biol. 2015 Aug 17 [PMID: 26280532] (WB, Mouse)

Smith CJ. Mechanisms in suppressing chromosomal translocations and maintaining genome stability. Clinical Colorectal Cancer. 2014 Sep 21 (WB, Mouse)

Details:
NBS1 antibody used for WB in experiments involving Artemis+/+ and ArtemisP70/P70 mouse embryonic fibroblasts

Mason JM, Das I, Arlt M et al. The SNM1B/APOLLO DNA nuclease functions in resolution of replication stress and maintenance of common fragile site stability. Hum Mol Genet 2013 Jul 30 [PMID: 23863462] (ICC/IF, Human)

Bensimon A, Schmidt A, Ziv Y et al. ATM-dependent and -independent dynamics of the nuclear phosphoproteome after DNA damage. Sci Signal 2010 Dec [PMID: 21139141]

Uhl M, Csernok A, Aydin S et al. Role of SIRT1 in homologous recombination. DNA Repair (Amst) 2010 Apr [PMID: 20097625] (WB)

Momcilovi? O, Choi S, Varum S et al. Ionizing radiation induces ataxia telangiectasia mutated-dependent checkpoint signaling and G(2) but not G(1) cell cycle arrest in pluripotent human embryonic stem cells. Stem Cells. 2009 Aug. [PMID: 19544417]

Blickwedehl J, Agarwal M, Seong C et al. Role for proteasome activator PA200 postglutamyl proteasome activity in genomic stability. PNAS;105(42):16165-16170. 2008 [PMID: 18845680]

Procedures

Immunohistochemistry Protocol for NBS1 Antibody (NB110-57272)
Immunohistochemistry Protocol for Paraffin-embedded Tissues

1. Solutions and reagents
1.1. Xylene
1.2. Ethanol, anhydrous denatured, histological grade (100%, 95%, 70%)
1.3. Washing buffer:
TBST washing buffer: 1XTBS/0.1% Tween-20
To prepare stock solution of 10X TBS: add 24.2 g Trizma base and 80 g sodium chloride to 1L of dH2O. Adjust pH to 7.6.
Working solution. 1XTBST/0.1% Tween-20: add 100ml 10XTBS to 900 ml dH2O. Add 1 ml Tween-20 and mix well.
1.4. Distilled water (dH2O)
1.5. Antigen Retrieval Solution:
0.01M Sodium Citrate Buffer, pH 6.0
To prepare stock solutions:
Solution A. 0.1 M citric acid solution: dissolve 21.0 g of citric acid, monohydrate (C6H8O7.H2O) in 1 liter of dH2O.
Solution B. 0.1M sodium citrate solution: dissolve 29.4 g trisodium citrate dihydrate (C6H5Na3O7.2H2O) in 1 liter of dH2O.
Working solution: Add 9 ml of Stock solution A and 41 ml of stock solution B to 450 ml of dH2O. Adjust pH to 6.0.
1.6. 3% Hydrogene Peroxide
1.7. Blocking buffer:
PBS (Dulbeccos Phosphate Buffered Salts, 1X, catalog #21-031-CV from Mediatech, Inc.) + 10% serum (serum origin depends on the host of the secondary antibody)
1.8. Hematoxylin QS (catalog #H-3404 from Vector Laboratories, Inc.)
1.9. Permanent Mounting medium (VectaMount, catalog# H-5000 Vector Laboratories, Inc.)

2. Protocol

2.1. Deparaffinization/Rehydration
2.1.1. Heat slides in an oven at 65C for 1 hour.
2.1.2. De-paraffinize/hydrate using the following series of washes: two Xylene washes (5 min each), followed by two 100% ethanol rinses (5 min each), followed by 95% ethanol, 70% ethanol, 50% ethanol, 30% ethanol, followed by H2O and a TBST wash for 5 min on a shaker.
2.2. Antigen Retrieval
2.2.1. Immerse slides into staining dish containing Antigen Retrieval Solution.
2.2.2. Place covered staining dish into the rice cooker. Add 120 ml of dH2O.
2.2.3. When cook is turned to warm (about 20 to 30 min), unplug the cooker and remove the staining dish to the bench top.
2.2.4. Allow to cool down, without cover, for 20 min.
2.3. Staining
2.3.1. Wash slides with TBST for 5 min on a shaker.
2.3.2. Inactivate endogenous peroxidase by covering tissue with 3% hydrogen peroxide for 10 min.
2.3.3. Wash slides three times with TBST (3 min each on a shaker).
2.3.4. Block slides with the blocking solution for 1 hour.
2.3.5. Dilute primary antibody in the blocking buffer per recommendation on the data sheet.
2.3.6. Apply primary antibody to each section and incubate overnight in the humidified chamber (4C).
2.3.7. Wash slides three times with TBST (3 min each on a shaker).
2.3.8. Apply to each section secondary HRP-conjugated anti-rabbit antibody diluted in the blocking solution per manufacturers recommendation; incubate for 1 hour at room temperature.
2.3.9. Wash slides three times with TBST (3 min each on a shaker).
2.3.10. Add freshly prepared DAB substrate to the sections.
2.3.11. Incubate tissue sections with the substrate at room temperature until suitable staining develops (generally 2 to 5 min).
2.3.12. Rinse sections with water.
2.3.13. Counterstain with Hematoxylin.
2.3.14. Rinse sections with water.
2.3.15. Dehydrate samples using two rinses with 100% Ethanol (20 dips per rinse) followed by two rinses with Xylene (30 dips per rinse).
2.3.16. Mount coverslips on slides using Permount medium.

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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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