Product Datasheet

hnRNP A1 Antibody (4B10) - BSA Free
NB100-672

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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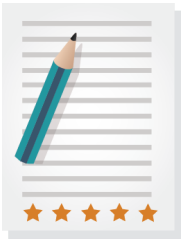
Updated 10/23/2024 v.20.1



NB100-672

hnRNP A1 Antibody (4B10) - BSA Free

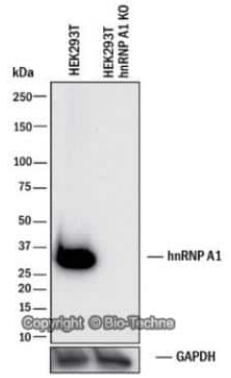
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4B10
Preservative	0.02% Sodium Azide
Isotype	IgG2a
Purity	Protein G purified
Buffer	PBS

Product Description	
Host	Mouse
Gene ID	3178
Gene Symbol	HNRNPA1
Species	Human, Mouse, Bovine, Canine
Reactivity Notes	Not yet tested in other species.
Specificity/Sensitivity	Does not react with hnRNP A2 or B
Immunogen	Full length partially purified human hnRNP A1. [UniProt# P09651]

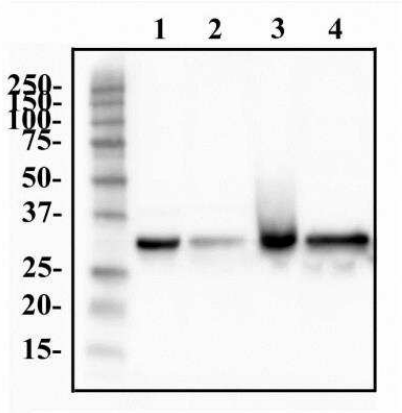
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation, Microarray, Knockdown Validated
Recommended Dilutions	Western Blot 0.25 - 0.5 ug/ml, ELISA Indirect, Immunohistochemistry reported in scientific literature (PMID 3129338), Immunocytochemistry/ Immunofluorescence 5 ug/ml, Immunoprecipitation 1:10-1:500, Microarray, Knockdown Validated
Application Notes	In WB a band can be seen between 32-35 kDa. This antibody immunoprecipitates the hnRNP complex.

Images

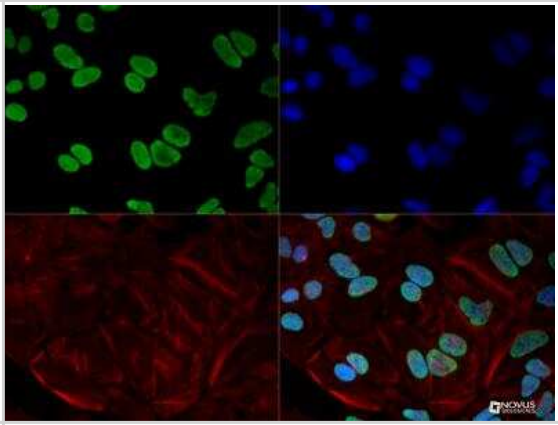
Knockdown Validated: hnRNP A1 Antibody (4B10) [NB100-672] - Western blot shows lysates of HEK293T human embryonic kidney parental cell line and hnRNP A1 knockout (KO) HEK293T cell line. PVDF membrane was probed with 0.5 ug/ml of Mouse Anti-Human hnRNP A1 Monoclonal Antibody (Catalog # NB100-672) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog #HAF018). Specific band was detected for hnRNP A1 at approximately 35 kDa (as indicated) in the parental HEK293T cell line, but is not detectable in the knockout HEK293T cell line. This experiment was conducted under reducing conditions.



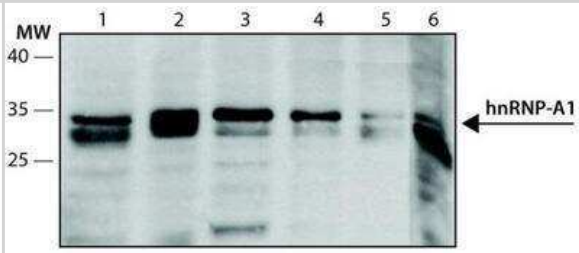
Western Blot: hnRNP A1 Antibody (4B10) [NB100-672] - Whole cell protein from HeLa (lane 1), A431 (lane 2), Hek293 (lane 3) and MCF7 (lane 4) were separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 0.5 mg/ml anti-hnRNP in 1% milk. Precision Plus Protein All Blue molecular weight markers (BioRad) were detected with 1 ug/ml Anti-Blue Marker antibody (NBP2-33376). Both antibodies were detected with an anti-mouse HRP secondary antibody using chemiluminescence.



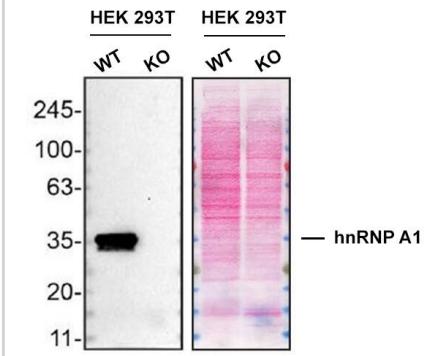
Immunocytochemistry/Immunofluorescence: hnRNP A1 Antibody (4B10) [NB100-672] - The hnRNP A1 (4B10) antibody was tested in HeLa cells at a 1:200 dilution against Dylight 488 (Green). Actin and nuclei were counterstained against Phalloidin 568 (Red) and DAPI (Blue), respectively.



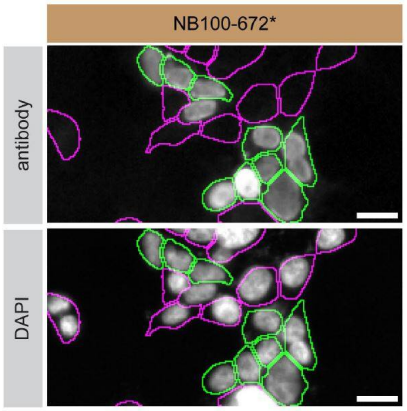
Western Blot: hnRNP A1 Antibody (4B10) [NB100-672] - Cell line lysates were separated on SDS-PAGE and probed with 0.5 ug/mL Monoclonal Anti-hnRNP-A1 Clone: 4B10 (NB100-672). Lanes: 1-HeLa, 2-Jurkat, 3-HEK-293T, 4-WiDr, 5-NCI-H1299, 6-F9.



Western blot shows lysates of HEK 293T cell line and hnRNP A1 knockout HEK 293T cell line (KO). Nitrocellulose membrane was probed with hnRNP A1 Antibody (Catalog # NB100-672) O/N at 4C, followed by HRP-conjugated Secondary Antibody and ECL detection. A specific band was detected for hnRNP A1 (as indicated) in the parental HAP1 cell line, but is not detectable in knockout HAP1 cell line. The Ponceau stained transfer of the blot is shown. Image, protocol and testing courtesy of YCharOS Inc. (ycharos.com).



HEK 293T WT and hnRNP A1 KO cells were labelled with a green or a far-red fluorescent dye, respectively. Cells were stained with hnRNP A1 antibody and with the corresponding Alexa-fluor 555 coupled secondary antibody including DAPI. Acquisition of the blue (nucleus-DAPI), green (identification of WT cells), red (antibody staining) and far-red (identification of KO cells) channels was performed. Representative images of the blue and red (grayscale) channels are shown. WT and KO cells are outlined with green and magenta dashed line, respectively. Antibody dilution used: 1/1000. Image, protocol and testing courtesy of YCharOS Inc. (ycharos.com).



Publications

Thompson VF, Victor RA, Morera AA et al. Transcription-Dependent Formation of Nuclear Granules Containing FUS and RNA Pol II Biochemistry 2018-12-26 [PMID: 30488693]

Chen Y, Wu Y, Li J et al. Cooperative regulation of Zhx1 and hnRNPA1 drives the cardiac progenitor-specific transcriptional activation during cardiomyocyte differentiation Cell death discovery 2023-07-14 [PMID: 37452012] (WB, Mouse)

Halbert D, Domenyuk V, Spetzler D et al. Aptamers and uses thereof United States Patent Application US 9958448 B2 2018-01-01

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Marrone, L;Drexler, HCA;Wang, J;Tripathi, P;Distler, T;Heisterkamp, P;Anderson, EN;Kour, S;Moraiti, A;Maharana, S;Bhatnagar, R;Belgard, TG;Tripathy, V;Kalmbach, N;Hosseinzadeh, Z;Crippa, V;Abo-Rady, M;Wegner, F;Poletti, A;Troost, D;Aronica, E;Busskamp, V; FUS pathology in ALS is linked to alterations in multiple ALS-associated proteins and rescued by drugs stimulating autophagy Acta Neuropathol. 2019-04-01 [PMID: 30937520] (ICC/IF, Human)

Gasperini L, Rossi A, Cornella N et al. The hnRNP raly regulates PRMT1 expression and interacts with the ALS-linked protein FUS: implication for reciprocal cellular localization. Mol. Biol. Cell. 2018-10-24 [PMID: 30354839] (WB, Human)

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Hu J, Khodadadi-Jamayran A, Mao M et al. AKAP95 regulates splicing through scaffolding RNAs and RNA processing factors. Nat Commun. 2016-11-08 [PMID: 27824034]

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van der Houven van Oordt W, Diaz-Meco MT, Lozano J et al. The MKK(3/6)-p38-signaling cascade alters the subcellular distribution of hnRNP A1 and modulates alternative splicing regulation. J Cell Biol. 2000-04-17 [PMID: 10769024] (ICC/IF, IP, WB, Mouse)

Bonnal S, Pileur F, Orsini C et al. Heterogeneous nuclear ribonucleoprotein A1 is a novel internal ribosome entry site trans-acting factor that modulates alternative initiation of translation of the fibroblast growth factor 2 mRNA. J Biol Chem. 2005-02-11 [PMID: 15525641] (WB, IP, Human)

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