Product Datasheet

YTHDF3 Antibody - BSA Free
NBP2-94636-0.1ml

Unit Size: 0.1 ml

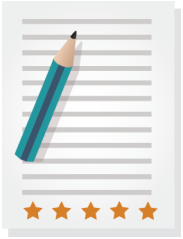
Store at -20C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 2

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP2-94636

Updated 9/9/2025 v.20.1



NBP2-94636-0.1ml

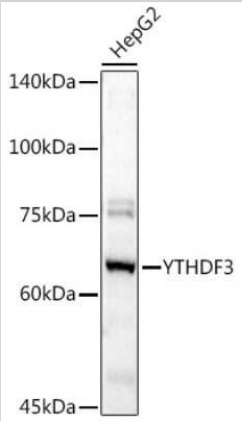
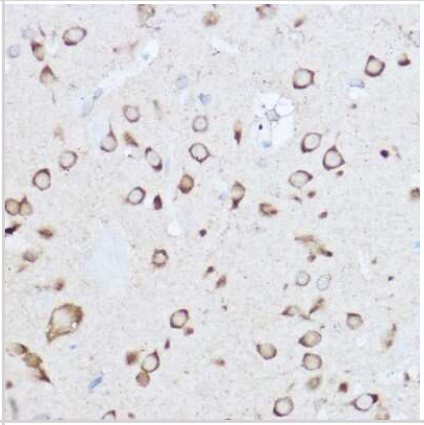
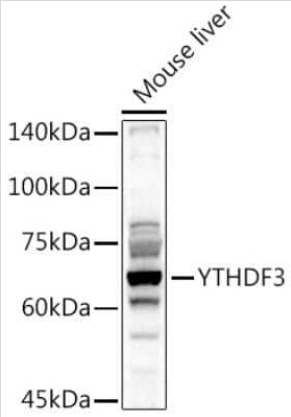
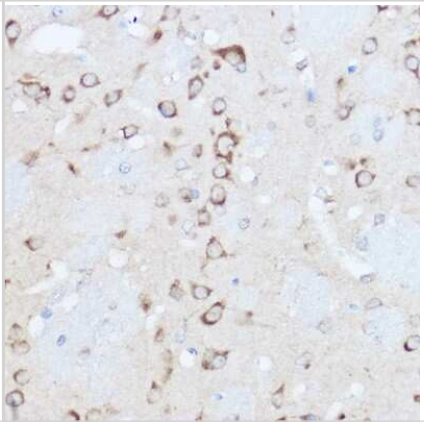
YTHDF3 Antibody - BSA Free

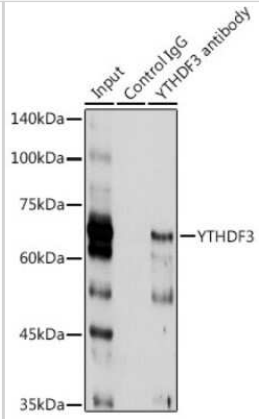
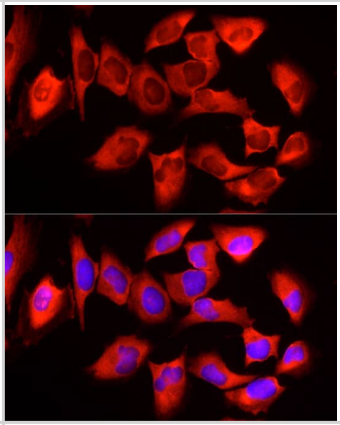
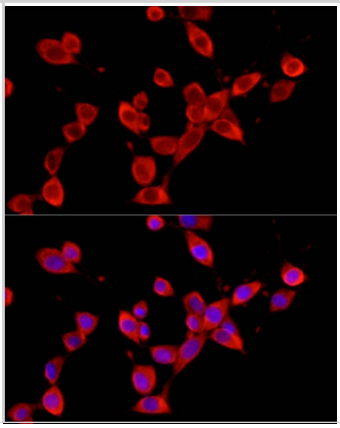
Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.3), 50% glycerol
Target Molecular Weight	63 kDa

Product Description	
Description	Novus Biologicals Rabbit YTHDF3 Antibody - BSA Free (NBP2-94636) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-YTHDF3 Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	253943
Gene Symbol	YTHDF3
Species	Human, Mouse, Rat
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 1-275 of human YTHDF3 (NP_689971.4). MSATSVDQRPKGQGNKVSVQNGSIHQKDAVNDDDFEPYLSSQTNQSNSYPP MSDPYMPSYYAPSIGFPYSLGEAAWSTAGDQPMPYLTTYGQMSNGEHHYIPD GVFSQPGALGNTPPFLGQHGFNFFPGNADFSTWGTSGSQGQSTQSSAYSSS YGYPPSSLGRAITDGQAGFGNDTLSKVPGISSIEQGMTGLKIGGDLTAAVTKTV GTALSSSGMTSIATNSVPPVSSAAPKPTSWAAIARKPAKPQPKLKPKGNVGIGG SAVPPPPIKHNMN

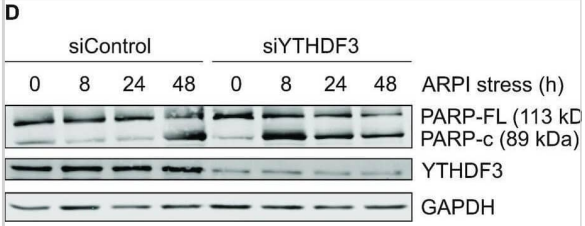
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500 - 1:1000, Immunohistochemistry 1:100 - 1:500, Immunocytochemistry/ Immunofluorescence 1:50 - 1:200, Immunoprecipitation 1:500 - 1:1000, Immunohistochemistry-Paraffin

Images

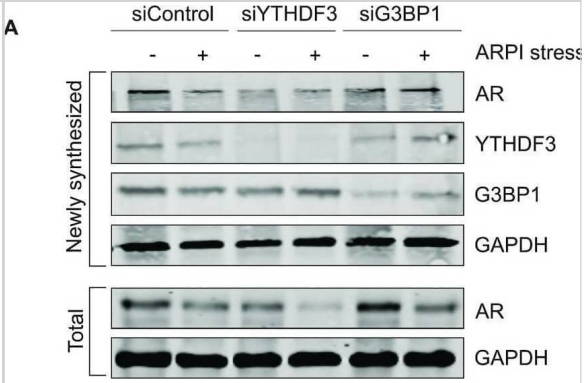
Western Blot: YTHDF3 Antibody [NBP2-94636] - Western blot analysis of extracts of HepG2 cells, using YTHDF3 antibody (NBP2-94636) at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 90s.	
Immunohistochemistry-Paraffin: YTHDF3 Antibody [NBP2-94636] - Immunohistochemistry of paraffin-embedded rat brain using YTHDF3 Rabbit pAb (NBP2-94636) at dilution of 1:500 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.	
Western Blot: YTHDF3 Antibody [NBP2-94636] - Western blot analysis of extracts of Mouse liver, using YTHDF3 antibody (NBP2-94636) at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25ug per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit. Exposure time: 90s.	
Immunohistochemistry-Paraffin: YTHDF3 Antibody [NBP2-94636] - Immunohistochemistry of paraffin-embedded mouse brain using YTHDF3 Rabbit pAb (NBP2-94636) at dilution of 1:500 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.	

Immunoprecipitation: YTHDF3 Antibody [NBP2-94636] - Immunoprecipitation analysis of 300ug extracts of HT-1080 cells using 3ug YTHDF3 antibody (NBP2-94636). Western blot was performed from the immunoprecipitate using YTHDF3 antibody (NBP2-94636) at a dilution of 1:1000.	
Immunocytochemistry/ Immunofluorescence: YTHDF3 Antibody - BSA Free [YTHDF3] - Immunofluorescence analysis of HeLa cells using YTHDF3 Rabbit pAb at dilution of 1:50 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) at 1:500 dilution. Blue: DAPI for nuclear staining.	
Immunocytochemistry/ Immunofluorescence: YTHDF3 Antibody - BSA Free [YTHDF3] - Immunofluorescence analysis of NIH/3T3 cells using YTHDF3 Rabbit pAb at dilution of 1:50 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) at 1:500 dilution. Blue: DAPI for nuclear staining.	

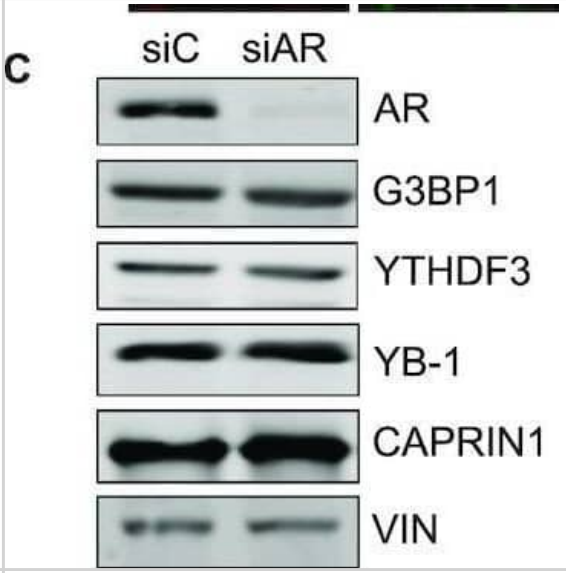
G3BP1 and YTHDF3 are cytoprotective proteins. (A) ARPI stress induced SG formation is reversible. LNCaP cells were unstressed, ARPI stressed or rescued from treatment. The cells were then stained with anti-G3BP1 and anti-YTHDF3 antibodies to reveal the SGs. Quantification of SGs is shown on the right-side panel. Note that ARPI stress- induced SG formation was reversed when treatment was withdrawn. (B) ARPI stress induced reduction in AR protein was restored to steady state level following stress removal. (C–F) KD of G3BP1 or YTHDF3 reduced cell survival in LNCaP cells. LNCaP cells transfected with siControl, siG3BP1 or siYTHDF3 were unstressed or treated with ARPI stress for 8, 24 and 48 h. The cell lysates were subjected to Western blotting for the indicated antibodies. Note that ARPI stress enhanced PARP cleavage in siG3BP1 (C) and siYTHDF3 (D) cells compared to control cells (8 h treatment). The above cells were subjected to IF using antibodies against activated BAX (2D2), an indicator of apoptosis (E). BAX positive cells are indicated by arrowheads. (F) Quantification of BAX activation. Note that acute ARPI stress strongly activated BAX in siG3BP1 and siYTHDF3 cells compared to control cells (8 h treatment). The results are an average of three independent experiments with ***P < 0.001. Scale 10 μm. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/34939643), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



YTHDF3 translationally regulates AR mRNA. (A) Knockdown (KD) of G3BP1 did not affect rate of synthesis of AR protein, while KD of YTHDF3 reduced the rate of synthesis of AR protein as measured by Click chemistry (see Methods for details). (B) KD of YTHDF3 reduced the level of AR mRNA in the PSs. (C) KD of YTHDF3 did not affect the total mRNA level of AR. (D) YTHDF3 binds to AR mRNA in the PSs. (E) m6A-modified AR mRNA is reduced in the PSs after ARPI stress. Results are presented as an average of 3 independent experiments with ***P < 0.001, **P < 0.01, n.s., non-significant. (F) Model illustrating the regulation of AR mRNA during ARPI stress. Under the unstressed condition, AR mRNA is present as two fractions. m6A-modified translatable AR mRNA fraction, regulated by METTL3, is associated with YTHDF3 in the PSs, and m6A-unmodified untranslatable AR mRNA fraction is associated with G3BP1 in the non-PS fraction. When the cells are exposed to ARPI stress, PSs disassemble, and the m6A-modified AR mRNA and associated YTHDF3 is redistributed from the PSs to SGs to form the AR mRNA-YTHDF3 cluster. At the same time, G3BP1 associated m6A-unmodified AR mRNA also redistributes from the non-PS fraction to SGs to form the AR mRNA-G3BP1 cluster. Thus, these two ribonucleoprotein (RNP) clusters, AR mRNA-YTHDF3 and AR mRNA-G3BP1, co-exist in the SG. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/34939643), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



AR mRNA supports SG formation in response to ARPI stress treatment. (A) AR knockdown (KD) using siRNAs delayed the formation of SGs. LNCaP cells were transfected with siControl or siAR siRNAs, -/+ ARPI stress for different time points (30 min, 60 min and 75 min), and stained with anti-YTHDF3 and anti-G3BP1 antibodies to analyse SGs. Note that SG formation is significantly delayed at 30 and 60 min, while this effect is gradually lost at 75 min of treatment. (B) Quantification of SGs. (C) KD of AR did not affect the level of different SG proteins. (D) Treatment with AR degrader, ARD-61, did not affect the level of SGs in response to ARPI stress. (E) Quantification of SGs. ARD-61 treatment reduced the level of AR protein as revealed by Western blot (F) without affecting the level of AR mRNA as revealed by qRT-PCR (G). The results are an average of three independent experiments with **P < 0.01. n.s., non-significant. Scale 10 µm. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/34939643), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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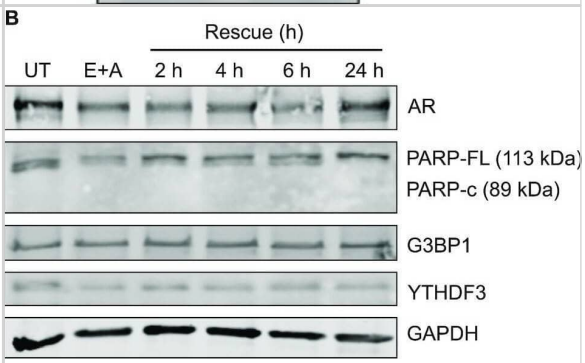

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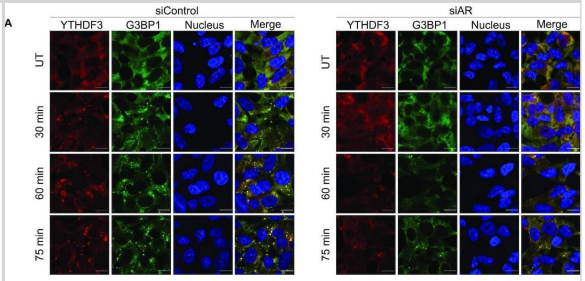
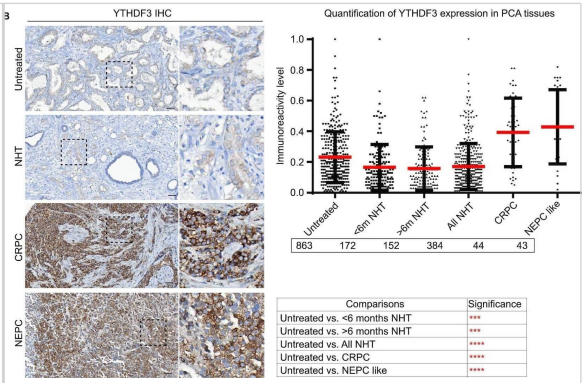


Immunohistochemistry (IHC) analysis of G3BP1 and YTHDF3 in PCA TMAs. PCA tissue microarrays (TMAs) were stained with anti-G3BP1 (A) and anti-YTHDF3 (B) antibodies. A part of the image is enlarged and shown. Quantification of staining is shown on the right-side panels. Statistics of quantification data is presented below respective graphs. Note that G3BP1 expression is increased in ARPI stressed, CRPC and NEPC tissues, while YTHDF3 expression is enhanced in CRPC and NEPC tissues. NHT: neoadjuvant hormonal therapy; CRPC: castration resistant PCA; NEPC: neuroendocrine PCA. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/34939643), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Huang J, Chen P, Jia L et al. Multi-Omics Analysis Reveals Translational Landscapes and Regulations in Mouse and Human Oocyte Aging Advanced science (Weinheim, Baden-Wurttemberg, Germany) 2023-07-03 [PMID: 37401155] (Immunocytochemistry/ Immunofluorescence, Mouse)

Somasekharan SP, Saxena N, Zhang F et al. Regulation of AR mRNA translation in response to acute AR pathway inhibition Nucleic acids research Dec 23 2021 12:00AM [PMID: 34939643] (ICC/IF, Human)

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NBP2-94636-0.1ml

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

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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