

Product Datasheet

MPST Antibody - BSA Free

NBP1-82617

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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NBP1-82617

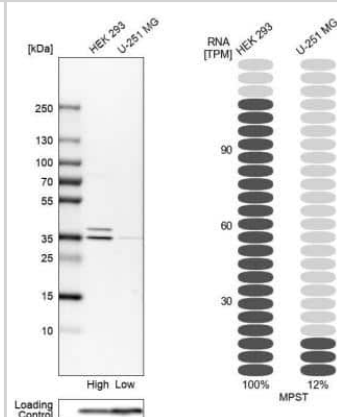
MPST Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol
Target Molecular Weight	33 kDa
Product Description	
Description	Novus Biologicals Rabbit MPST Antibody - BSA Free (NBP1-82617) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and Simple Western. Anti-MPST Antibody: Cited in 13 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	4357
Gene Symbol	MPST
Species	Human, Mouse, Rat
Reactivity Notes	Reactivity reported in scientific literature (PMID: 23215842). Mouse reactivity reported in scientific literature (PMID: 27521839). Use in Rat reported in scientific literature (PMID:32215177).
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: AVSLLDGGGLRHWRQNLPLSSGKSQPAPAEFRAQLDPAFIKTYEDIKENLESRR FQVVDSRATGRFRGTEPEPRDGIPEGHIPGTVNIPFTDFLSQEGLEKSPEEIRHL FQEKKVDLSKPLVATCGSGVTACHVALGAYLCKGPD
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:500 - 1:1000, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:500 - 1:1000
Application Notes	ICC/IF Fixation Permeabilization: Use PFA/Triton X-100. IHC-Paraffin HIER pH6 retrieval is recommended. See Simple Western Antibody Database for Simple Western validation: Tested in Liver, separated by Size, antibody dilution of 1:20, apparent MW was 39 kDa

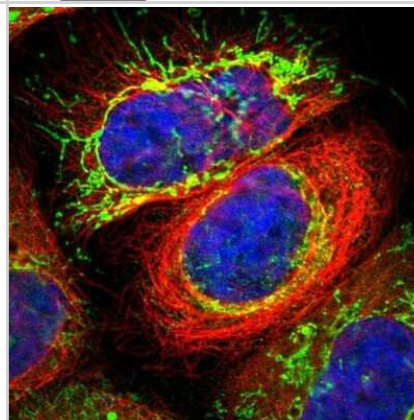


Images

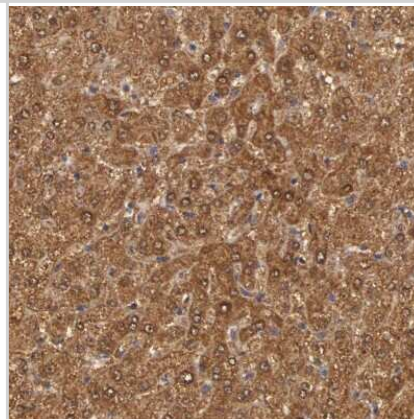
Western Blot: MPST Antibody [NBP1-82617] - Analysis in human cell lines HEK293 and U-251MG. Corresponding RNA-seq data are presented for the same cell lines. Loading control: Anti-PFN1.



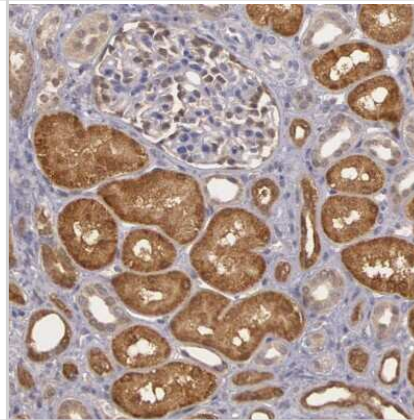
Immunocytochemistry/Immunofluorescence: MPST Antibody [NBP1-82617] - Staining of human cell line A-431 shows positivity in mitochondria. Antibody staining is shown in green.



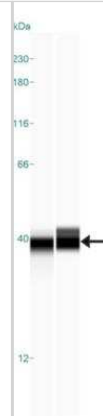
Immunohistochemistry-Paraffin: MPST Antibody [NBP1-82617] - Staining of human liver shows strong granular cytoplasmic positivity in hepatocytes.



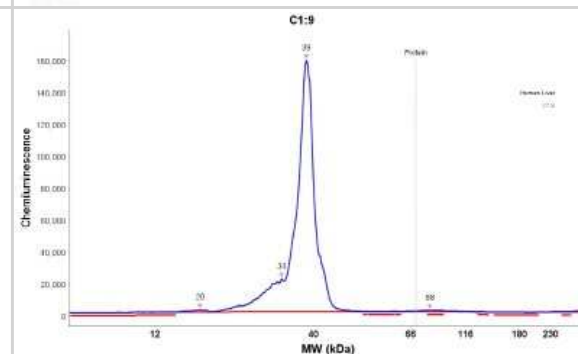
Immunohistochemistry-Paraffin: MPST Antibody [NBP1-82617] - Staining of human kidney shows moderate to strong granular cytoplasmic positivity in cells in tubules.



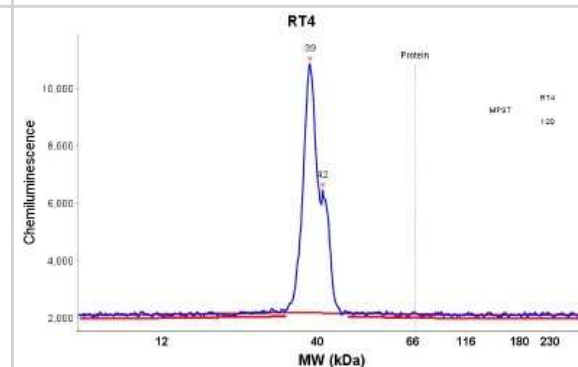
Simple Western: MPST Antibody [NBP1-82617] - Simple Western lane view shows a specific band for MPST in 0.2 mg/ml of Liver lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



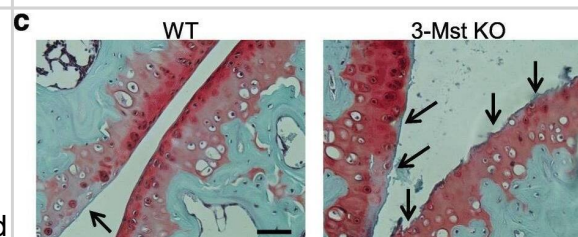
Simple Western: MPST Antibody [NBP1-82617] - Electropherogram image(s) of corresponding Simple Western lane view. MPST antibody was used at 1:20 dilution on Liver lysate(s).



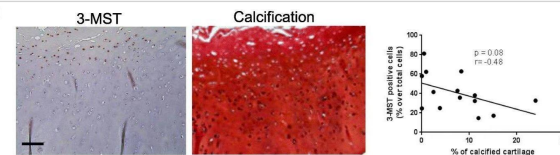
Simple Western: MPST Antibody [NBP1-82617] - Electropherogram image(s) of corresponding Simple Western lane view. MPST antibody was used at 1:20 dilution on RT-4 lysate(s).



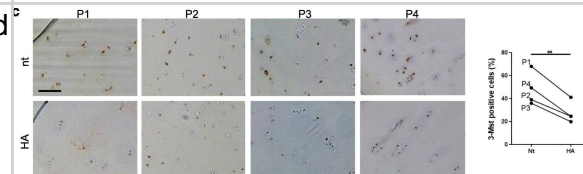
3-MST deficiency exacerbates joint calcification and cartilage damage in experimental OA. a Representative immunohistochemical analysis of 3-MST expression in the knee section from sham-operated and MNX WT mice. A knee section from a sham-operated 3-Mst KO mouse was used to prove the specificity of the 3-MST antibody. Scale bars 150 μ m. b Representative micro-CT scan images of WT and 3-MST KO MNX murine knee joints two months after surgery. White arrows show calcified periarticular deposits in MNX WT knees and their exacerbation in 3-MST KO mice. Graphs show CTAnalyzer quantitative analysis of new formation volume (mm³) and new formation crystal content (μ g) in WT and 3-MST KO MNX knees. c Representative histologies of WT and 3-MST KO MNX knees, stained with Safranin-O. Black arrows show increased cartilage degradation in 3-MST KO mice. Scale bars 150 μ m. Graphs show femoral scoring of cartilage damage and Safranin-O loss, accordingly to OARSI method. d Thiosulfate measurement in the serum of WT and 3-MST KO mice. Mice number WT n = 8, 3-MST KO n = 8. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/32183900>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Cartilage 3-MST expression is negatively correlated with OA severity and chondrocyte calcification and downmodulated by HA crystals. a 3-MST immunohistochemical staining in cartilage explants from end-stage osteoarthritis patients and consecutive sections stained with von Kossa/Safranin-O staining for calcium-containing crystals. For each staining, one representative picture from one out of 14 patients is shown. Scale bars 200 μ m. The graph shows the correlation between the % of 3-MST-positive cells and the % of calcified cartilage in the different patients. n = 14 patients. b Immunohistochemical staining of 3-MST in cartilage from individuals with low, medium, and high stage osteoarthritis and von Kossa/Safranin-O staining for calcium-containing crystals in consecutive sections. Pictures from one representative patient out of 5 patients per group are shown. Scale bars 200 μ m. The graphs show the % of 3-MST-positive cells and the % of calcified cartilage. Three fields were counted per patient and the mean plotted in the graph. n = 14 patients. c 3-MST immunohistochemistry of human cartilage explants stimulated 24 h with HA crystals (HA 500 μ g/ml) or not (Nt). Scale bars 200 μ m. The graph shows the % of 3-MST-positive cells in Nt vs HA-treated explants in each patient. Lines connect the Nt condition and the HA condition for each patient. n = 4 patients Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/32183900>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Publications

Yilmaz-Oral D, Kaya-Sezginer E, Asker H, Gur S. Co-administration of sodium hydrosulfide and tadalafil modulates hypoxia and oxidative stress on bladder dysfunction in a rat model of bladder outlet obstruction *International braz j urol* 2022-12-01 [PMID: 36173409]

Li M, Xu C, Shi J et Al. Fatty acids promote fatty liver disease via the dysregulation of 3-mercaptopyruvate sulfurtransferase/hydrogen sulfide pathway *Gut* 2018-12-01 [PMID: 28877979]

Md. Aejazur Rahman, Bridgette M. Cumming, Kelvin W. Addicott, Hayden T. Pacl, Shannon L. Russell, Kievershen Nargan, Threnesan Naidoo, Pratistadevi K. Ramdial, John H. Adamson, Rui Wang, Adrie J. C. Steyn Hydrogen sulfide dysregulates the immune response by suppressing central carbon metabolism to promote tuberculosis *Proceedings of the National Academy of Sciences of the United States of America* 2020-03-24 [PMID: 32139610]

Huang S, Chen X, Pan J et al. Hydrogen sulfide alleviates heart failure with preserved ejection fraction in mice by targeting mitochondrial abnormalities via PGC-1 β ? Nitric oxide : biology and chemistry 2023-05-12 [PMID: 37182786]

Wells G, Glasgow JN, Nargan K et al. Mu CT Analysis of the Human Tuberculous Lung Reveals Remarkable Heterogeneity in 3D Granuloma Morphology *American journal of respiratory and critical care medicine* 2021-05-20 [PMID: 34015247]

Qinyu-Zeng , Shuhua-He , Fengzhi-Chen et al. Administration of H₂S improves erectile dysfunction by inhibiting phenotypic modulation of corpus cavernosum smooth muscle in bilateral cavernous nerve injury rats *Nitric Oxide* 2020-11-24 [PMID: 33246103] (WB, Rat)

Mellis A, Misko A, Arjune S et al. The role of glutamate oxaloacetate transaminases in sulfite biosynthesis and H₂S metabolism *Redox Biology* 2020-01-01 [PMID: 33271457] (WB, Human)

Mitidieri E, Vanacore D, Turnaturi C et al. Uterine Dysfunction in Diabetic Mice: The Role of Hydrogen Sulfide Antioxidants (Basel, Switzerland) 2020-09-26 [PMID: 32993056] (WB, Mouse)

Wells G, Glasgow J, Nargan K et al. 3D microarchitecture of the human tuberculous granuloma *bioRxiv* 2020-06-15 (IF/IHC, Human)

Jin Z, Zhang Q, Wondimu E et al. H₂S stimulated bioenergetics in chicken erythrocytes and the underlying mechanism *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 2020-05-20 [PMID: 32432916]

Zhong L, Ding W, Zeng Q et Al. Sodium Tanshinone IIA Sulfonate Attenuates Erectile Dysfunction in Rats with Hyperlipidemia *Oxid Med Cell Longev* 2020-03-04 [PMID: 32215177] (WB, Rat)

Yetik-Anacak G, Dikmen A, Coletta C et al. Hydrogen sulfide compensates nitric oxide deficiency in murine corpus cavernosum. *Pharmacol. Res.* 2016-08-10 [PMID: 27521839] (WB, Mouse)

More publications at <http://www.novusbio.com/NBP1-82617>





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

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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