

Product Datasheet

PSAT1 Antibody NBP1-32920

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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Publications: 13

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NBP1-32920

PSAT1 Antibody

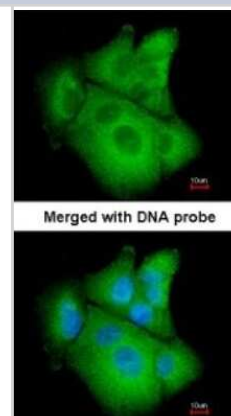
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.025% Proclin 300
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	PBS, 1% BSA, 20% Glycerol
Target Molecular Weight	40 kDa

Product Description	
Description	Novus Biologicals Rabbit PSAT1 Antibody (NBP1-32920) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-PSAT1 Antibody: Cited in 13 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	29968
Gene Symbol	PSAT1
Species	Human, Mouse
Reactivity Notes	Xenopus laevis (82%).
Immunogen	Recombinant protein encompassing a sequence within the center region of human PSAT1. The exact sequence is proprietary.

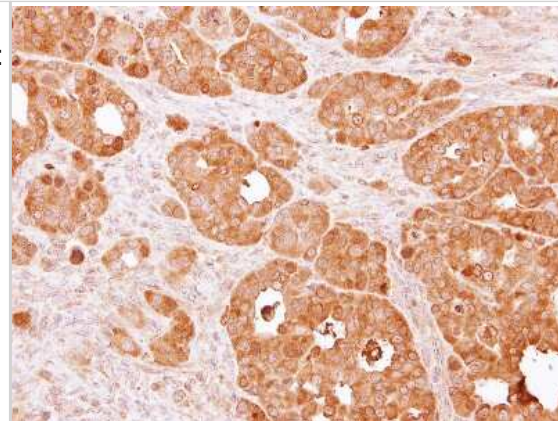
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Knockdown Validated
Recommended Dilutions	Western Blot 1:500-1:3000, Immunohistochemistry 1:100-1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000, Knockdown Validated

Images

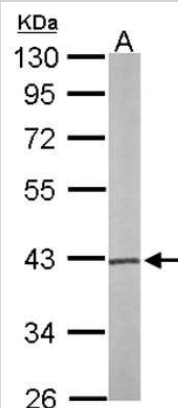
Immunocytochemistry/Immunofluorescence: PSAT1 Antibody [NBP1-32920] - Paraformaldehyde-fixed A549, using antibody at 1:200 dilution.



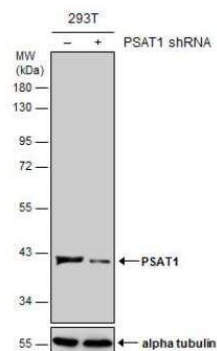
Immunohistochemistry-Paraffin: PSAT1 Antibody [NBP1-32920] - NCI-N87 xenograft, using PSAT1 antibody at 1:500 dilution. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min.



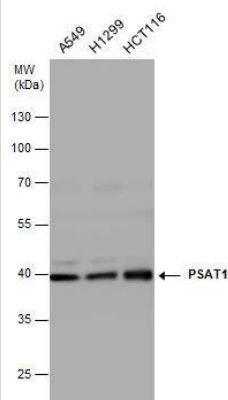
Western Blot: PSAT1 Antibody [NBP1-32920] - Sample (50 ug of whole cell lysate) A: Mouse brain 10% SDS PAGE; antibody diluted at 1:1000.



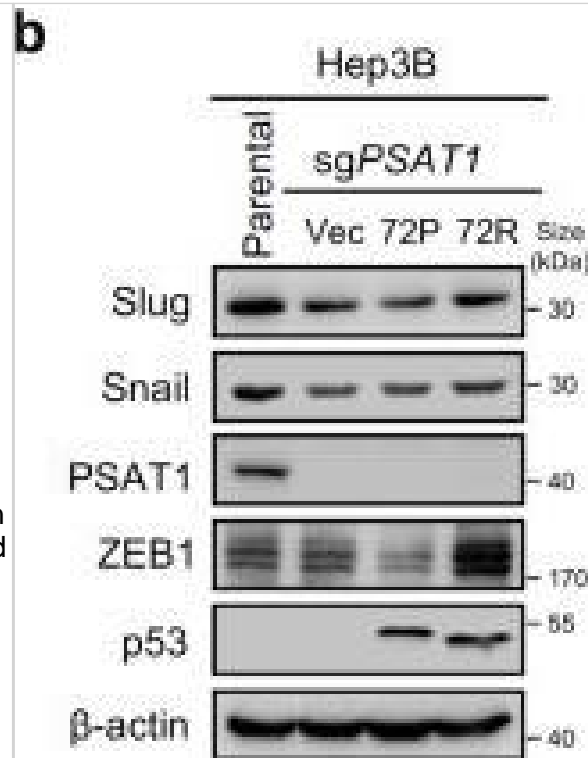
Western Blot: PSAT1 Antibody [NBP1-32920] - Non-transfected (-) and transfected (+) 293T whole cell extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with PSAT1 antibody [N1C3].



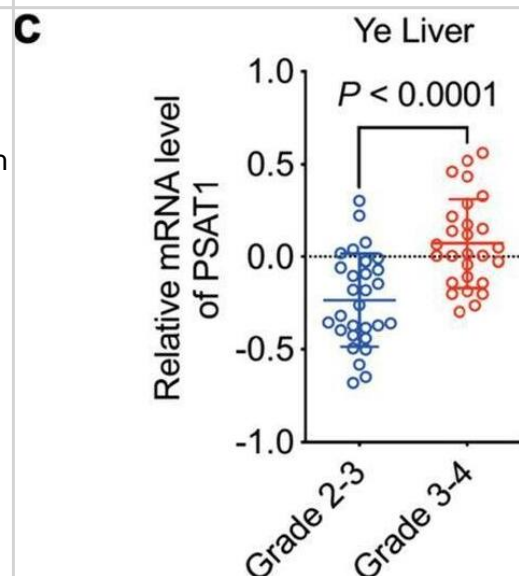
PSAT1 antibody [N1C3] detects PSAT1 protein by Western blot analysis. Various whole cell extracts (30 ug) were separated by 10% SDS-PAGE, and the membrane was blotted with PSAT1 antibody [N1C3] (NBP1-32920) diluted at 1:1000.



Loss of PSAT1 inhibits the metastatic potential of HCC cells containing p5372P. a Transwell assay showing the migration and invasion of parental Hep3B cells or PSAT1 knockout Hep3B cells transfected with vector, p53-72P, and p53-72R plasmids. Scale bar, 100 μ m. b Immunoblotting analysis of indicated proteins in parental or PSAT1 knockout Hep3B cells transfected with vector, p53-72P, and p53-72R plasmids. c Transwell assay showing the migration and invasion of parental or PSAT1 knockout PLC/PRF/5 cells. Scale bar, 50 μ m. d Wound healing assay showing cell migration of parental or PSAT1 knockout PLC/PRF/5 cells after 24 h. Scale bar, 200 μ m. e Parental or PSAT1 knockout PLC/PRF/5 cells were intrahepatically injected into BALB/c nude mice and the lung metastases were then calculated. Scale bar, 200 μ m. f Cell viability of parental or PSAT1 knockout PLC/PRF/5 cells treated with glucose restriction for 4 days. g Survival fraction of parental or PSAT1 knockout PLC/PRF/5 cells treated with or without 2.5 mM 2-DG. h Statistic dead cells of PLC/PRF/5 cells measured by Trypan blue staining. Parental or PSAT1 knockout PLC/PRF/5 cells were treated with or without poly-HEMA for 6 h. i Immunoblotting analysis of PSAT1 and β -actin in PLC/PRF/5 and Huh7 cells treated with or without glucose restriction for 24 h. j Immunoblotting analysis of PSAT1 and β -actin in indicated cells treated with or without poly-HEMA for 6 h. Data are means \pm s.d. NS not significant, **P < 0.01, ***P < 0.001 Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36788227>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



PSAT1 is up-regulated in human metastatic HCC tissues and predicts poor prognosis. a, b Kaplan-Meier analysis of overall survival rate based on PSAT1 expression in HCC samples and TCGA-Liver dataset. c PSAT1 mRNA levels in different grades of HCC patients according to Oncomine data set Ye Liver. d PSAT1 mRNA levels in HCC patients with or without vascular invasion according to Oncomine dataset Wurmbach Liver. e PSAT1 mRNA levels in primary or metastatic tumor tissues according to Oncomine dataset Ye Liver. f PSAT1 mRNA levels in HCC tissues with or without metastases according to Oncomine dataset Ye Liver. g IHC analysis of PSAT1 protein level in HCC tissue samples with (n = 26) or without (n = 46) intrahepatic metastasis. Scale bar, 20 μ m. Data are means \pm s.d. ***P < 0.001. h HE and IHC analysis of PSAT1 protein level in mice liver and lung (intrahepatic mice model). Scale bar, 1000 μ m. Data are means \pm s.d. ***P < 0.001 Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36788227>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Hulea L, Gravel SP, Morita M et al. Translational and HIF-1a-Dependent Metabolic Reprogramming Underpin Metabolic Plasticity and Responses to Kinase Inhibitors and Biguanides. *Cell Metab.* 2018-09-17 [PMID: 30244971] (Western Blot, Human)

Montrose DC, Saha S, Foronda M et al. Exogenous and Endogenous Sources of Serine Contribute to Colon Cancer Metabolism, Growth, and Resistance to 5-Fluorouracil *Cancer Research* 2021-05-01 [PMID: 33526512] (Western Blot, Human)

Kim Y, Ju H, Yoo SY et Al. Glutathione dynamics is a potential predictive and therapeutic trait for neoadjuvant chemotherapy response in bladder cancer *Cell Rep Med* 2023-10-04 [PMID: 37797616]

Vasileios Papalazarou, Alice C. Newman, Alejandro Huerta-Urbe, Nathalie M. Legrave, Mattia Falcone, Tong Zhang, Lynn McGarry, Dimitris Athineos, Emma Shanks, Karen Blyth, Karen H. Vousden, Oliver D. K. Maddocks Phenotypic profiling of solute carriers characterizes serine transport in cancer *Nature Metabolism* 2023-12-08 [PMID: 38066114]

Jennifer X Ji, Dawn R Cochrane, Gian Luca Negri, Shane Colborne, Sandra E Spencer Miko, Lynn N Hoang, David Farnell, Basile Tessier-Cloutier, Jutta Huvila, Emily Thompson, Samuel Leung, Derek Chiu, Christine Chow, Monica Ta, Martin Köbel, Lucas Feil, Michael Anglesio, Ellen L Goode, Kelly Bolton, Gregg B Morin, David G Huntsman The proteome of clear cell ovarian carcinoma. *The Journal of pathology* 2022-11-10 [PMID: 36031730]

Lee G, Wong C, Cho A et al. Serine synthesis pathway upregulated by E-cadherin is essential for the proliferation and metastasis of breast cancers *bioRxiv* 2023-05-25 [PMID: 37292712] (WB, Human)

Wang K, Luo L, Fu S et al. PHGDH arginine methylation by PRMT1 promotes serine synthesis and represents a therapeutic vulnerability in hepatocellular carcinoma *Nature communications* 2023-02-23 [PMID: 36823188] (WB)

Jiang J, Chen HN, Jin P et al. Targeting PSAT1 to mitigate metastasis in tumors with p53-72Pro variant *Signal transduction and targeted therapy* 2023-02-15 [PMID: 36788227] (IHC-P, Human)

Di Marcantonio D, Martinez E, Kanefsky JS et al. ATF3 coordinates serine and nucleotide metabolism to drive cell cycle progression in acute myeloid leukemia *Molecular cell* 2021-07-01 [PMID: 34081901]

Toonen Lodewijk J A, Overzier Maurice, Evers Melvin M et al. Transcriptional profiling and biomarker identification reveal tissue specific effects of expanded ataxin-3 in a spinocerebellar ataxia type 3 mouse model. *Molecular Neurodegeneration* 2018-06-22 [PMID: 29929540] (WB, Mouse)

Jiang J, Zhang L, Chen H et al. Regorafenib induces lethal autophagy arrest by stabilizing PSAT1 in glioblastoma *Autophagy* 2019-03-25 [PMID: 30909789] (WB, Human)

Maddocks ODK, Athineos D, Cheung EC et al. Modulating the therapeutic response of tumours to dietary serine and glycine starvation. *Nature.* 2017-04-19 [PMID: 28425994] (WB, Mouse)

More publications at <http://www.novusbio.com/NBP1-32920>





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 NBP1-32920

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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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