

Product Datasheet

Smith Antigen Antibody (Y12) NB600-546

Unit Size: 500 uL

Store at 4C. Do not freeze.

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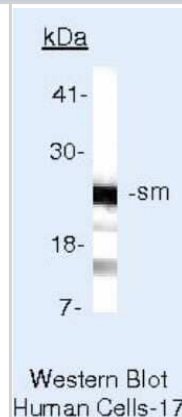
NB600-546

Smith Antigen Antibody (Y12)

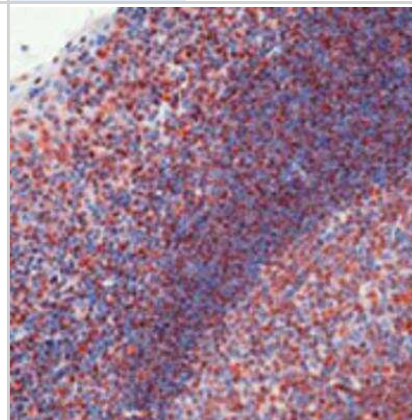
Product Information	
Unit Size	500 uL
Concentration	0.2 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Monoclonal
Clone	Y12
Preservative	0.09% Sodium Azide
Isotype	IgG3 Kappa
Purity	Protein G purified
Buffer	PBS (pH 7.4) and 0.2% BSA
Product Description	
Description	Novus Biologicals Mouse Smith Antigen Antibody (Y12) (NB600-546) is a monoclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-Smith Antigen Antibody: Cited in 7 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Species	Human, Mouse, Rat, Porcine, Drosophila, Rabbit
Reactivity Notes	Human reactivity reported in scientific literature (PMID: 17473171). Canine (PMID: 10330151). Mouse reactivity reported in scientific literature (PMID: 28093526). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information.
Specificity/Sensitivity	Ab-1 recognizes cross-reactive epitopes on the B'/B and D polypeptides of Sm. Ab-1 precipitates the small nuclear RNAs U1, U2, U4, U5, and U6 providing direct evidence that the Sm antigen resides on all these RNA-protein complexes.
Immunogen	The immunogen is generated from human Smith Antigen.
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunomicroscopy
Recommended Dilutions	Western Blot 0.5 - 1.0 ug/ml, ELISA, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin 1:50 - 1:100, Immunomicroscopy 1:10 - 1:500
Application Notes	WB: Detects an approx. 25 kDa, which corresponds to the predicted molecular weight of Smith Antigen. Precipitates the small nuclear RNAs U1, U2, U4, U5, and U6 providing direct evidence that the Sm antigen resides on all of these RNA-protein complexes. Use in ELISA reported in scientific literature (PMID 28093526). Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID 28515487).

Images

Western Blot: Smith Antigen Antibody (Y12) [NB600-546] - Analysis of LS174T Cells.



Immunohistochemistry-Paraffin: Smith Antigen Antibody (Y12) [NB600-546] - Human tonsil stained with Smith antibody using peroxidase-conjugate and AEC chromogen. Note nuclear staining of cells.



Publications

Blatnik A, Sanjeev M, Slivka J et al. Sm-site containing mRNAs can accept Sm-rings and are downregulated in Spinal Muscular Atrophy *Nucleic Acids Research* 2025-08-28 [PMID: 40823813]

M Schilling, AB Prusty, B Boysen, FS Oppermann, YL Riedel, A Husedzinov, H Rasouli, A König, P Ramanathan, J Reymann, H Erfle, H Daub, U Fischer, OJ Gruss TOR signaling regulates liquid phase separation of the SMN complex governing snRNP biogenesis *Cell Reports*, 2021-06-22;35(12):109277. 2021-06-22 [PMID: 34161763]

Andrey Damianov, Chia-Ho Lin, Jeffrey Huang, Lin Zhou, Yasaman Jami-Alahmadi, Parham Peyda, James Wohlschlegel, Douglas L Black The splicing regulators RBM5 and RBM10 are subunits of the U2 snRNP engaged with intron branch sites on chromatin. *Molecular cell* 2024-04-22 [PMID: 38537639]

Esser L, Li Q, Jüdt M et al. The Impact of p70S6 Kinase-Dependent Phosphorylation of Gemin2 in UsnRNP Biogenesis *International Journal of Molecular Sciences* 2023-10-25 [PMID: 37958537] (Western Blot, Immunocytochemistry/ Immunofluorescence, Human)

Naro C, Pellegrini L et al. Functional Interaction between U1snRNP and Sam68 Insures Proper 3' End Pre-mRNA Processing during Germ Cell Differentiation. *Cell Rep* 2019-12-03 [PMID: 30865884] (WB, Mouse)

Mirra A, Rossi S, Scaricamazza S et al. Functional interaction between FUS and SMN underlies SMA-like splicing changes in wild-type hFUS mice. *Sci Rep* 2017-05-17 [PMID: 28515487] (ICC/IF, IF/IHC, Mouse)

Zhou Y, Chen H, Liu L et al. Cathepsin K Deficiency Ameliorates Systemic Lupus Erythematosus-like Manifestations in Faspr Mice *J. Immunol* 2017-01-16 [PMID: 28093526] (ELISA, Mouse)

Somarelli JA, Mesa A, Rodriguez R, Avellan R, Martinez L, Zang YJ, Greidinger EL, Herrera RJ. Epitope mapping of the U1 small nuclear ribonucleoprotein particle in patients with systemic lupus erythematosus and mixed connective tissue disease. *Lupus*;20(3):274-89. 2011-03-01 [PMID: 21362751] (WB, 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 NB600-546

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-96978	Mouse IgG3 Kappa Light Chain Isotype Control (MG3K)

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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