Product Datasheet

SR-AI/MSR Antibody - BSA Free
NBP1-00092

Unit Size: 0.1 ml

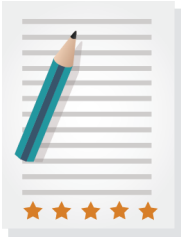
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 2 Publications: 8

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-00092

Updated 9/9/2025 v.20.1



NBP1-00092

SR-AI/MSR Antibody - BSA Free

Product Information

Unit Size	0.1 ml
Concentration	1.00 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS + 30% Glycerol
Target Molecular Weight	50 kDa

Product Description

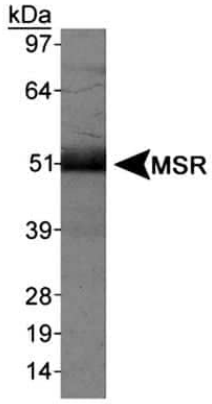
Description	Novus Biologicals Rabbit SR-AI/MSR Antibody - BSA Free (NBP1-00092) is a polyclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-SR-AI/MSR Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	4481
Gene Symbol	MSR1
Species	Human, Mouse
Immunogen	Synthetic peptide made to an internal portion of human Macrophage Scavenger Receptor I (within residues 400-450). [Swiss-Prot: P21757]

Product Application Details

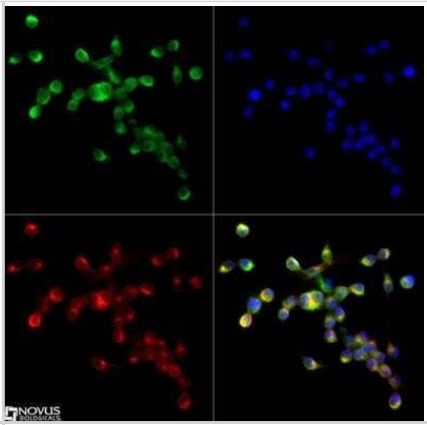
Applications	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Proximity Ligation Assay
Recommended Dilutions	Western Blot 0.5 ug/ml, Flow Cytometry 2-5 ug/million cells, Immunohistochemistry reported in scientific literature (PMID 26358193), Immunocytochemistry/ Immunofluorescence 1:50-1:200, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen, Proximity Ligation Assay reported in scientific literature (PMID 28338748)
Application Notes	In Western blot, a band is seen ~50 kDa.

Images

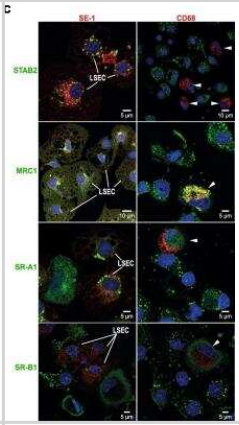
Western Blot: SR-AI/MSR Antibody [NBP1-00092] - Detection of Macrophage Scavenger Receptor I (MSR1) protein in the lysate of human liver.



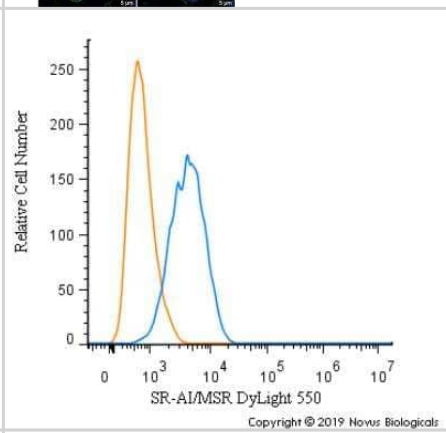
Immunocytochemistry/Immunofluorescence: SR-AI/MSR Antibody [NBP1-00092] - The MSR antibody was tested in Raw cells at a 1:250 dilution against DyLight 488 (Green). Alpha-tubulin and nuclei were counterstained against DyLight 550 (Red) and DAPI (Blue), respectively.



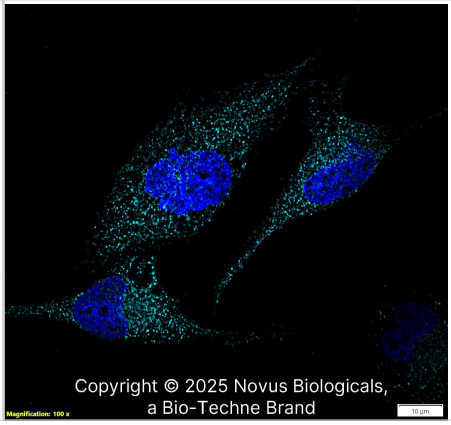
Immunohistochemistry-Frozen: SR-AI/MSR Antibody - BSA Free [NBP1-00092] - Immune labeling of non-parenchymal liver cell (NPC) cultures for selected SRs and C-type lectins. NPCs from the 25-45% interface on the Percoll gradient were incubated for 1 h, then fixed 15 min in 4% paraformaldehyde, and double immune-labeled with antibodies to Fc-gamma-RIIb2 (SE-1; red fluorescence; left column), or CD68 (red fluorescence; right column), and to either stabilin-2 (STAB2; green), mannose receptor (MRC1; green), SR-A1 (green), or SR-B1 (green). Overlap of green and red fluorescence is seen as yellow staining in the overlay images. Cell nuclei were stained with DAPI (blue). Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/33246411/) licensed under a CC-BY license.

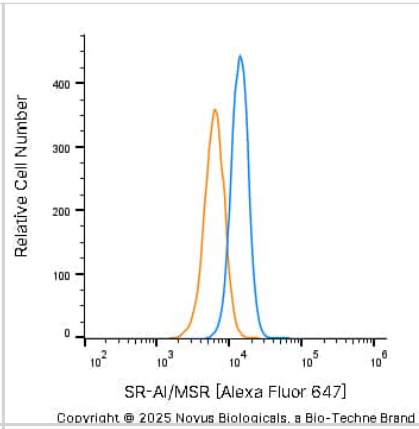
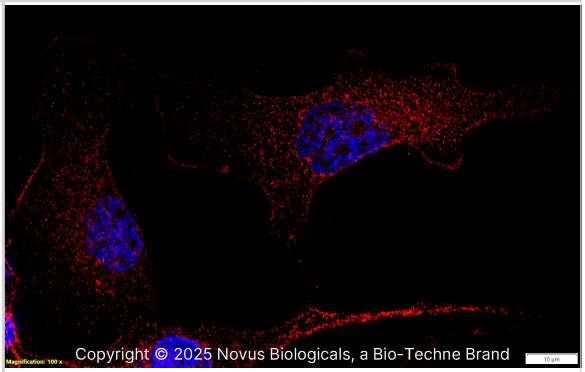


Flow Cytometry: SR-AI/MSR Antibody [NBP1-00092] - A surface stain was performed on Raw264.7 cells with SR-AI/MSR Antibody NBP1-00092R (blue) and a matched isotype control (orange). Cells were incubated in an antibody dilution of 5 ug/mL for 20 minutes at room temperature. Both antibodies were conjugated to DyLight 550.



SR-AI/MSR was detected in immersion fixed SJCRH30 human Rhabdomyosarcoma cell line using Rabbit anti-SR-AI/MSR Antigen Affinity Purified Polyclonal Antibody conjugated to Alexa Fluor® 647 (Catalog # NBP1-00092AF647) (light blue) at 10 µg/mL overnight at 4C. Cells were counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.



An intracellular stain was performed on SJCRH30 human Rhabdomyosarcoma cell line with Rabbit anti-SR-AI/MSR Affinity-purified Polyclonal Antibody conjugated to Alexa Fluor® 647 (Catalog # NBP1-00092AF647, blue histogram) or matched control antibody (NBP2-24891AF647, orange histogram) at 5 µg/mL for 30 minutes at RT.	
SR-AI/MSR was detected in immersion fixed SJCRH30 human Rhabdomyosarcoma cell line using Rabbit anti-SR-AI/MSR Antigen Affinity Purified Polyclonal Antibody conjugated to Biotin (Catalog # NBP1-00092B) at 5 µg/mL overnight at 4C. Cells were stained using Streptavidin conjugated to DyLight 550 (red) and counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.	

Publications

Chen J, Koduri S, Dai S et al. Intra-hematomal White Matter Tracts Act As a Scaffold for Macrophage Infiltration After Intracerebral Hemorrhage Translational Stroke Research 2021-10-01 [PMID: 33094829] (Immunohistochemistry-Frozen, Immunocytochemistry/ Immunofluorescence, Mouse)

Wang P, Li M, Gao T et al. Vascular Electrical Stimulation with Wireless, Battery-Free, and Fully Implantable Features Reduces Atherosclerotic Plaque Formation Through Sirt1-Mediated Autophagy Small (Weinheim an der Bergstrasse, Germany) 2023-06-02 [PMID: 37267941] (WB, Mouse)

Bhandari, S, Li, R Et al. Transcriptome and proteome profiling reveal complementary scavenger and immune features of rat liver sinusoidal endothelial cells and liver macrophages. BMC Mol Cell Biol 2020-11-27 [PMID: 33246411] (WB, Mouse)

Ma C, Feng K, Yang X, et al. Targeting macrophage liver X receptor by hydrogel-encapsulated T0901317 reduces atherosclerosis without effect on hepatic lipogenesis British journal of pharmacology 2021-01-28 [PMID: 33506494]

Cao L, Sun PL, He Y et al. Immune stromal features in cervical squamous cell carcinoma are prognostic factors for distant metastasis: A retrospective study Pathol. Res. Pract. 2019-11-18 [PMID: 31776057] (IF/IHC, Human)

Komai K, Ito M, Kanamori M et al. Role of scavenger receptors as damage-associated molecular pattern receptors in Toll-like receptor activation. International Immunology. 2017-02-24 [PMID: 28338748] (PLA, Mouse)

Bartels ED, Christoffersen C, Lindholm MW, Nielsen LB. Altered Metabolism of LDL in the Arterial Wall Precedes Atherosclerosis Regression. Circ. Res. 2015-09-10 [PMID: 26358193] (IF/IHC, Mouse)

Piccolo P, Vetrini F, Mithbaokar P et al. SR-A and SREC-I Are Kupffer and Endothelial Cell Receptors for Helper-dependent Adenoviral Vectors. Mol Ther 2013-01-29 [PMID: 23358188] (ICC/IF, IHC-Fr, Mouse)

Procedures

Western Blot Protocol for SR-AI/MSR Antibody (NBP1-00092)
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.
2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot TBS -0.05% Tween 20 (TBST).
5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.
6. Wash the membrane in TBST three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate overnight at 4C with gentle rocking.
8. Wash the membrane in TBST three times for 10 minutes each.
9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.
10. Wash the blot in TBST three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturer's instructions.

Flow (Cell Surface) Protocol for SR-AI/MSR Antibody (NBP1-00092)
Protocol for Flow Cytometry Cell Surface Staining
Sample Preparation.
1. Grow cells to 60-85% confluency. Flow cytometry requires between 2 x 105 and 1 x 106 cells for optimal performance.
2. If cells are adherent, harvest gently by washing once with staining buffer and then scraping. Avoid using trypsin as this can disrupt certain epitopes of interest. If enzymatic harvest is required, use Accutase, Collagenase, or TrypLE Express for a less damaging option.
3. Reserve 100 uL for counting, then transfer cell volume into a 15 mL conical tube and centrifuge for 4 minutes at 400 RCF.
a. Count cells using a hemocytometer and a 1:1 trypan blue exclusion stain to determine cell viability before starting the flow protocol. If cells appear blue, do not proceed.
4. Re-suspend cells to a concentration of 1 x 106 cells/mL in staining buffer.
5. Aliquot out 100 uL samples in accordance with your experimental samples.

Tip: When cell surface and intracellular staining are required in the same sample, it is advisable that the cell surface staining be performed first since the fixation and permeabilization steps might reduce the availability of surface antigens.
Cell surface staining
1. Recommended: Block non-specific interactions using 0.5-1 ug of a species specific Fc-blocking reagent.
2. Add appropriate amount of each antibody (eg. 1 test or 1 ug per sample, as experimentally determined) to 100 uL of staining buffer per sample (eg. use 1 mL of staining buffer for 10 samples).
3. Mix well and incubate at room temperature in dark for 20 minutes.
4. Add 1-2 mL of staining buffer and centrifuge at 400 RCF for 1 minute and discard supernatant.
5. Wash twice by re-suspending cells in staining buffer (2 mL for tubes or 200 uL for wells) and centrifuging at 400 RCF for 5 minutes. Discard supernatant.
6. Add appropriate amount of secondary antibody (as experimentally determined) to each sample.
7. Incubate at room temperature in dark for 20 minutes.
8. Add 1-2 mL of staining buffer and centrifuge at 400 RCF for 1 minute and discard supernatant.
9. Wash twice by re-suspending cells in staining buffer (2 mL for tubes or 200 uL for wells) and centrifuging at 400 RCF for 5 minutes. Discard supernatant.
10. Resuspend in an appropriate volume of staining buffer (usually 500 uL per sample) and proceed with analysis on your flow cytometer.

Immunohistochemistry-Paraffin Protocol for SR-AI/MSR Antibody (NBP1-00092)
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.

Immunocytochemistry/ Immunofluorescence Protocol for SR-AI/MSR Antibody (NBP1-00092)
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and wash the cells briefly in PBS. Add 4% paraformaldehyde to the dish and fix at room temperature for 10 minutes.
2. Remove the paraformaldehyde and wash the cells in PBS.
3. Permeabilize the cells with 0.1% Triton X100 or other suitable detergent for 2 min.
4. Remove the permeabilization buffer and wash three times for 5 minutes each in PBS. Be sure to not let the specimen dry out.
5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
6. Add primary antibody at appropriate dilution and incubate overnight at 4C.
7. Remove primary antibody and replace with PBS. Wash three times for 5 minutes each.
8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove secondary antibody and replace with PBS. Wash three times for 5 minutes each.
10. Counter stain DNA with DAPI if required.

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 NBP1-00092

NB820-59232	Human Liver Whole Tissue Lysate (Adult Whole Normal)
NBP1-00092PEP	SR-AI/MSR Antibody Blocking Peptide
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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-00092

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications