

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse SR-AI/MSR in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human SR-AI is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 268318
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse SR-AI/MSR Trp83-Ser458 Accession # P30204
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	Recombinant Mouse SR-AI/MSR (Catalog # 1797-MS)
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	RAW 264.7 mouse monocyte/macrophage cell line

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

The scavenger receptor (SR) family comprises a group of functionally defined membrane receptors that share the common ability to bind and internalize modified forms of Low Density Lipoproteins (mLDL) (1-3). Family members are classified alphabetically. The A class include four proteins: the three subtypes of SR-A (AI, AII, and AIII) that are generated by alternative splicing of the same gene, and a structurally similar protein named MARCO (4). All A class SRs are multidomain trimeric type II membrane proteins. SR-AI has an N-terminal cytoplasmic domain, a transmembrane domain, a spacer domain, an α-helical coiled coil, a collagen-like domain and a C-terminal cysteine-rich domain. SR-A is expressed by most tissue macrophages, dendritic cells and Kupffer cells. It is also highly expressed by microglia in neonatal as well as Alzheimer' Disease brains. SR-AI binds a broad range of polyanionic ligands including modified proteins (e.g. Oxidized, acetylated or maleylated LDL, Advanced glycation end-product proteins), polyribonucleotides (polyguanosine and polyinosine), polysaccharides (dextran sulfate, fucoidan), phospholipids (phosphatidylserine), bacterial products (lipopolysaccharide and lipoteichoic acid) and selected chemical compounds (silica, crocidolite asbestos). The ligand-binding region has been localized to a positively charged region in the carboxyl end of the collagen-like domain. Based on its ligand binding characteristics, SR-AI is implicated in many physiological and pathophysiological functions. Studies using SR-A knockout mouse have also suggested roles of SR-A in atherogenesis, host defense and innate immunity, acquired immune responses, macrophage adhesion, and phagocytosis of apoptotic cells (1-3).

## References:

1. Daugherty, A. *et al.* (2000) *Curr. Opin. Cardiovasc. Pulm. Ren. Invest. Drugs* **2**:223.
2. Platt, N. and S. Gordon (2001) *J. Clin. Invest.* **108**:649.
3. Platt, N. and S. Gordon (1998) *Chem. Biol.* **5**:R193.
4. Elomaa, O. *et al.* (1995) *Cell* **80**:603.