Mouse SR-AI/MSR Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF1797

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse SR-AI/MSR in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse SR-AI/MSR Trp79-Ser454 Accession # AAA39747
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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
Western Blot	0.1 µg/mL	Recombinant Mouse SR-AI/MSR (Catalog # 1797-MS)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.