Human SREC-I/SCARF1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 373606

Catalog Number: MAB2409

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SREC-I/SCARF1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human SREC-2 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 373606
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human SREC−I/SCARF1 Ser20-Thr421 Accession # Q14162
Formulation	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.

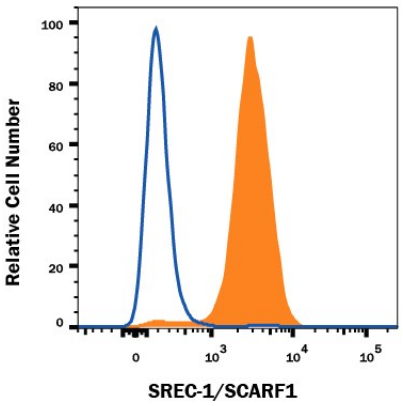
APPLICATIONS

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
Western Blot	1 µg/mL	Recombinant Human SREC-I/SCARF1 Fc Chimera (Catalog # 2409-SR)
Flow Cytometry	0.25 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Flow Cytometry



Detection of SREC-I/SCARF1 in HUVEC Human Cells by Flow Cytometry. HUVEC human umbilical vein endothelial cells were stained with Mouse Anti-Human SREC-I/SCARF1 Monoclonal Antibody (Catalog # MAB2409, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
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.

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BACKGROUND

The scavenger receptor (SR) family comprises a group of functionally defined membrane receptors that share a common ability to bind and internalize modified forms of low density lipoproteins (LDL) such as acetylated LDL (AcLDL) and oxidized LDL(OxLDL) (1-3). Family members are classified alphabetically. They play important roles in lipid metabolism, in host defence and in the regulation of acquired immunity (2, 4). Scavenger receptor expressed by endothelial cells-I (SREC-I; also called SCARF1) and SREC-2 are two proteins that belong to the F type scavenger receptor group (SR-F1 and SR-F2). The full length cDNA of human SREC-I encodes an 830 amino acid (aa) type I transmembrane protein which contains a 19 aa signal peptide, a 402 aa extracellular region, a 21 aa transmembrane segment, and a 388 aa long cytoplasmic domain. The extracellular region contains ten EGF-like repeats (five of which fit the exact consensus sequence for an EGF-like domain) while the cytoplasmic domain is rich in serine and proline in the N-terminal half, and glycine in the C-terminal segment (5, 6). In addition to the full length form, four SREC-I isoforms exist. Two show insertions of a stop codon in EGF-like domain 8, resulting in mature soluble forms of 323 aa and 318 aa, respectively. A third isoform deletes part of domain 8 plus domains 9 and 10; it continues in-frame to generate a mature transmembrane protein of 725 aa. The last isoform shows only cytoplasmic splicing, with 72 aa substituted for the last 332 aa of the full length form. All three transmembrane forms bind acetylated LDL (6). Native SREC-I is approximately 150 kDa and is expressed by endothelial cells, macrophages and fetal neurons (7, 8). In the extracellular region, human SREC-I shares 76% and 53% aa sequence identity with mouse SREC-I and human SREC-2, respectively.

References:

1. Horiuchi, S. *et al.* (2003) Amino Acids **25**:283.
2. Greaves, D.R. and S. Gordon (2005) J. Lipid Res. **46**:11.
3. Platt, N. and S. Gordon (1998) Chem. Biol. **5**:R193.
4. Platt, N. and S. Gordon (2001) J. Clin. Invest. **108**:649.
5. Adachi, H. *et al.* (1997) J. Biol. Chem. **272**:31217.
6. Adachi, H. and M. Tsujimoto (2002) J. Biol. Chem. **277**:24014.
7. Shibata, M. *et al.* (2004) J. Biol. Chem. **279**:40084.
8. Tanura, Y. *et al.* (2004) J. Biol. Chem. **279**:30938.

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