Human SREC-I/SCARF1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2409

DESCRIPTION

Species Reactivity	Human
Specificity	Detects SREC-I/SCARF1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human (rh) SREC-II is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human SREC-I/SCARF1 Ser20-Thr421 Accession # Q14162
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

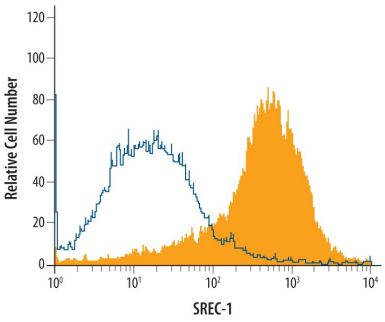
APPLICATIONS

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 Human SREC-I/SR-F1 Fc Chimera (Catalog # 2409-SR)
Flow Cytometry	2.5 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.	
Blockade of Receptor-ligand Interaction	In a functional ELISA, 0.030-0.300 µg/mL of this antibody will block 50% of the binding of Recombinant Human SREC-I Fc Chimera (Catalog # 2409-SR) to immobilized human acetylated low-density lipoproteins (AcLDL).	

DATA

Flow Cytometry



Detection of SREC-I/SR-F1 in HUVEC Human Cells by Flow Cytometry. HUVEC human umbilical vein endothelial cells were stained with Goat Anti-Human SREC-I/SR-F1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2409, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Phycoerythrin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0107).

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.

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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) and SREC-II 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 in size, and expressed by endothelial cells, macrophages and fetal neurons (7, 8). In the extracellular region human SREC-I is 76% aa identical to mouse SREC-I. The extracellular regions of human SREC-I and II are 53% aa identical.

References:

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