

DESCRIPTION

Species Reactivity	Human
Specificity	Detects SREC-II/SCARF2 in Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human SREC-I is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human SREC-II/SCARF2 Ala42-Gly442 Accession # Q96GP6
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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. In general, 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). Unlike SREC-I, SREC-II is somewhat unique in that it doesn't show expected binding to modified LDL (5). The full length cDNA for human SREC-II encodes an 870 amino acid (aa) type I transmembrane protein which contains a 43 aa signal peptide, a 398 aa extracellular region, a 21 aa transmembrane segment, and a 408 aa cytoplasmic domain (5, 6). Depending upon the reference, the extracellular region contains 7-10 EGF-like repeats, with a cytoplasmic domain that is rich in serine and proline in its N-terminal half and glycine in its C-terminal segment (5, 6). There is at least one alternate splice variant that shows a 5 aa deletion in the juxtamembrane region of the cytoplasmic domain (6, 7). The deletion does not change the reading frame as the distal 390 amino acids are identical in the two isoforms. The Genbank suggests another variant is possible involving amino acids 750-768 of the precursor. Again, this doesn't seem to change the reading frame as amino acids downstream of this are unchanged (6, 8). SREC-II is expressed by endothelial cells and vascular smooth muscle cells (5, 9). In the extracellular region human SREC-II is 95% aa identical to mouse SREC-II. The extracellular regions of human SREC-II and SREC-I are 53% aa identical. Notably, more than serving as a scavenger receptor, SREC-II would seem to form heterophilic interactions with SREC-I during cell-to-cell aggregation (5).

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