

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	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.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 373606
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human SREC-I/SCARF1 Ser20-Thr421 Accession # Q14162
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	HUVEC human umbilical vein endothelial cells

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> ● 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. 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:

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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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