

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SCARA5 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse SCARA5 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 673527
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human SCARA5 Arg83-His495 Accession # Q6ZMJ2
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	HepG2 human hepatocellular carcinoma cell line

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

Scavenger receptor A5 (SCARA5) is also known as testis expressed scavenger receptor (Tessr). Class A scavenger receptors, including CL-P1, MARCO, SCARA3, and SR-A1, are type II transmembrane proteins that contain a collagenous stalk (1-3). Mature human SCARA5 consists of a 60 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 414 aa extracellular domain (ECD) with a spacer, a collagen-like, and a scavenger receptor cysteine-rich (SRCR) domain (4-6). Within the ECD, human SCARA5 shares 87% aa sequence identity with mouse and rat SCARA5. It shares 23%-34% aa sequence identity with CL-P1, MARCO, SCARA3, and SR-A1. Alternate splicing generates isoforms that lack the SRCR domain, the transmembrane segment, or the 225 aa spacer region between the membrane and the collagen-like domain (6). SCARA5 is a cell surface disulfide-linked homotrimer of > 250 kDa (5). It is highly expressed in testicular Sertoli and germ cells and more weakly in the epithelia of other tissues (4, 5). During mouse development, SCARA5 expression is attenuated in female embryos at the time of sex determination, whereas it is maintained in the developing testis (4). SCARA5 is re-expressed in the adult ovary (4). SCARA5 binds heat-killed bacterial particles but not yeast particles or modified LDL (5).

References:

1. Murphy, J.E. *et al.* (2005) *Atherosclerosis* **182**:1.
2. Mukhopadhyay, S. And S. Gordon (2004) *Immunobiology* **209**:39.
3. Sarrias, M.R. *et al.* (2004) *Crit. Rev. Immunol.* **24**:1.
4. Sarraj, M.A. *et al.* (2005) *Dev. Dyn.* **234**:1026.
5. Jiang, Y. *et al.* (2006) *J. Biol. Chem.* **281**:11834.
6. Accession # Q6ZMJ2.

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