

DESCRIPTION

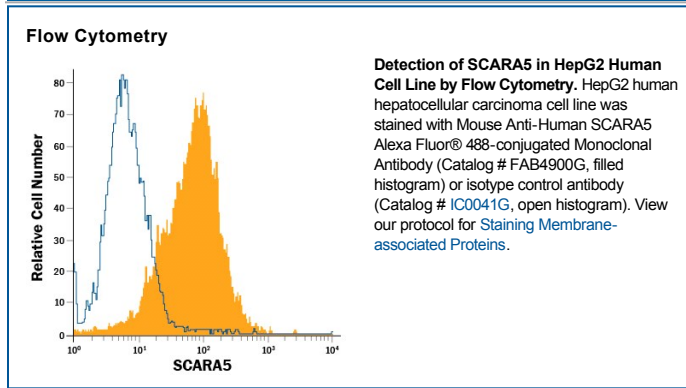
Species Reactivity	Human
Specificity	Detects human SCARA5 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse SCARA5 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 673527
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human SCARA5 Arg83-His495 Accession # Q6ZMJ2
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 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	5 µL/10 ⁶ cells	See Below

DATA



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), also known as Tesr, is a 70-75 kDa member of the scavenger receptor "supergroup" of molecules. It is one of at least six class A members that possess a collagen-like domain and form intramembrane homotrimers (1,3). Class A scavenger receptors are type II transmembrane proteins. 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 (3-6). Within the ECD, human SCARA5 shares 87% aa sequence identity with mouse and rat SCARA5. Among other class A members, it shares 23%-34% aa sequence identity with CL-P1, MARCO, SCARA3, and SR-A1 in the ECD. 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 200-210 kDa (5,7). It is highly expressed by a number of cell types, including testicular Sertoli cells, transitional epithelium, respiratory pseudostratified columnar epithelium, intestinal M cells, astrocytes, retinal ganglion cells, endothelial cells and likely intestinal Paneth cells (5, 8). SCARA5 binds heat-killed bacterial particles but not yeast particles or modified LDL (5). It is also recognized to bind and transport L (light)-ferritin across anatomical boundaries (8). Finally, SCARA5 has also been found in both nucleus and cytoplasm (8).

References:

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3. Zani, I.A. *et al.* (2015) *Cells* **4**:178.
4. Sarraj, M.A. *et al.* (2005) *Dev. Dyn.* **234**:1026.
5. Jiang, Y. *et al.* (2006) *J. Biol. Chem.* **281**:11834.
6. SwissProt Accession # Q6ZMJ2.
7. Li, J.Y. *et al.* (2009) *Dev. Cell* **16**:35.
8. Mendes-Jorge, L. *et al.* (2014) *PLoS One.* **9**:e106974.

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