

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse SCARA5 in direct ELISAs and Western blots. In direct ELISAs, less than 40% cross-reactivity with recombinant human SCARA5 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse SCARA5 Arg83-Pro491 Accession # Q8K299
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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 Mouse SCARA5 (Catalog # 4754-SR)
Flow Cytometry	2.5 µg/10 ⁶ cells	Mouse splenocytes
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 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.

BACKGROUND

Scavenger receptor A5 (SCARA5; also known as testis expressed scavenger receptor Tesr) is a Class A scavenger receptor that is related to CL-P1, MARCO, SCARA3, and SR-A1. All are type II transmembrane proteins that contain a collagenous stalk (1-3). Mature mouse SCARA5 consists of a 60 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 410 aa C-terminal extracellular domain (ECD) that contains a coiled-coil, a collagen-like, and a scavenger receptor cysteine-rich (SRCR) region (4, 5). Within the ECD, mouse SCARA5 shares 87% and 98% aa sequence identity with human and rat SCARA5, respectively. It shares 24%-29% aa sequence identity with CL-P1, MARCO, SCARA3, and SR-A1. Alternative splicing generates one isoform that lacks the SRCR domain and a second that additionally lacks the cytoplasmic and transmembrane regions. 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.* (2002) *Dev. Dyn.* **234**:1026.
5. Jiang, Y. *et al.* (2006) *J. Biol. Chem.* **281**:11834.