

**DESCRIPTION**

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse FCRN in direct ELISAs and Western blots. In direct ELISAs, approximately 6% cross-reactivity with recombinant human FCRN is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived mouse FCRN Ser22-Ser301 Accession # AAH03786
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

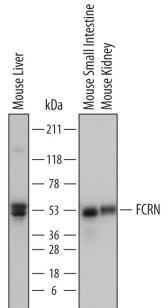
**APPLICATIONS**

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.25 µg/mL	See Below
<b>Intracellular Staining by Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

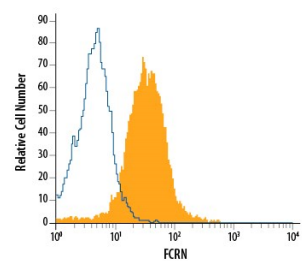
**DATA**

**Western Blot**



**Detection of Mouse FCRN by Western Blot.** Western blot shows lysates of mouse liver tissue, mouse small intestine tissue, and mouse kidney tissue. PVDF membrane was probed with 0.25 µg/mL of Goat Anti-Mouse FCRN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6775) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). Specific bands were detected for FCRN at approximately 48 to 55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Intracellular Staining by Flow Cytometry**



**Detection of FCRN in J774A.1 Mouse Cell Line by Flow Cytometry.** J774A.1 mouse reticulum cell sarcoma macrophage cell line was stained with Goat Anti-Mouse FCRN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6775, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

FcRn (IgG receptor FcRn large subunit p51/α-chain) is a 44-52 kDa member of the Ig superfamily. In mouse, it is expressed by intestinal epithelium of neonates and fetal yolk sac endoderm during pregnancy. Together with p14/β<sub>2</sub>-Microglobulin, FcRn forms an MHC I-like noncovalent heterodimer termed the FcRn complex. In rodent, FcRn transports IgG in milk into the intestine, and IgG from the mother's blood into the mouse via endodermal FcRn linked to a special FcγRIIb macrophage receptor. It is also expressed by select macrophages and DCs, and participates in endosomal-associated antigen presentation to CD4+ T cells. Mature mouse FcRn is a 344 amino acid (aa) type I transmembrane glycoprotein. It contains a 276 aa extracellular region (aa 22-297) that contains an Ig-like domain (aa 201-288). The FcRn complex forms a homodimer when binding IgG. One potential splice variant shows a four aa insertion after Gly109. Over aa 22-301 of the splice variant (GenBank #:AAH03786), mouse FcRn shares 91% and 68% aa identity with rat and human FcRn, respectively.