

**DESCRIPTION**

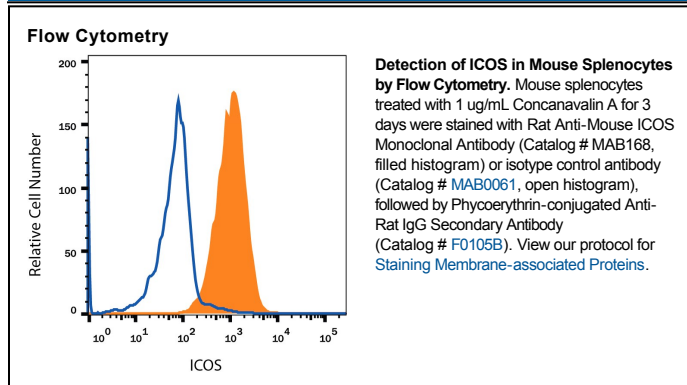
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse ICOS in direct ELISAs.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 670306
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	NS0 mouse myeloma cell line transfected with mouse ICOS Accession # Q9WVS0
<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>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**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 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**

Mouse ICOS (inducible co-stimulator), also called AILIM (activation-inducible lymphocyte immunomediatory molecule) and CRP-1 (CD28-related protein-1), is a member of the CD28 family of immune costimulatory receptors. Other family members are CD28, CTLA-4 and PD-1. Mouse ICOS is a homodimeric type I transmembrane protein consisting of 200 amino acids (aa) with a putative 20 aa signal sequence, a 122 aa extracellular domain, a 23 aa transmembrane region, and a 35 aa cytoplasmic domain. ICOS shares approximately 39% aa similarity with CD 28 and CTLA-4. Mouse and human ICOS share approximately 72% aa identity. ICOS is expressed on most CD45RO<sup>+</sup> cells. ICOS expression is upregulated within approximately 24-48 hours of activation on T<sub>H</sub> primed cells. B7-H2, a member of the B7 family of costimulatory ligands, has been identified as the ICOS ligand. The B7-H2/ICOS interaction appears to play roles in T cell dependent B cell activation and T<sub>H</sub> differentiation.

**References:**

1. Coyle, A.J. and J.C. Gutierrez-Ramos (2001) *Nat. Immunol.* **2**:203.
2. Mages, H.W. *et al.* (2000) *Eur. J. Immunol.* **30**:1040.
3. Yoshinaga, S.K. *et al.* (1999) *Nature* **402**:827.
4. Hutloff, A. *et al.* (1999) *Nature* **397**:263.
5. Aicher, A. *et al.* (2000) *J. Immunol.* **164**:4689.
6. Coyle, A.J. *et al.* (2000) *Immunity* **13**:95.
7. Gonzalo, J.A. *et al.* (2001) *J. Immunol.* **166**:1.