

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>Conjugate</b>	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
<b>Formulation</b>	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		
<b>Please Note:</b> Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Mouse splenocytes treated with Concanavalin A

PREPARATION AND STORAGE	
<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

**BACKGROUND**

Mouse ICOS (inducible co-stimulator), also called ALLIM (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.

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