

## DESCRIPTION

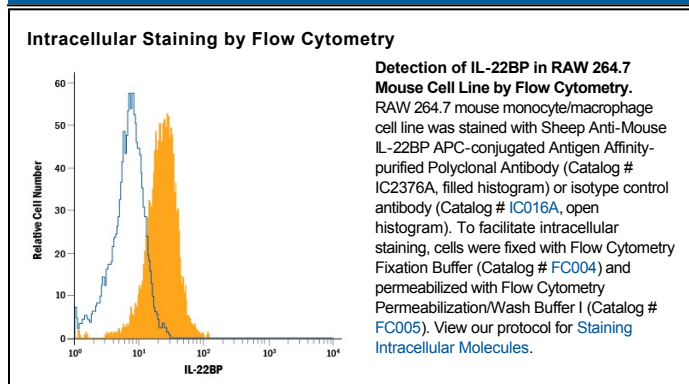
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-22BP in direct ELISAs and Western blots. In Western blots, approximately 10% cross-reactivity with recombinant human (rh) IL-22BP is observed and 5% cross-reactivity with rhIL-22 R is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse IL-22BP Thr19-Pro230 Accession # AAI24999
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Intracellular Staining by Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## 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**

Interleukin 22 Binding Protein (IL-22BP), also known as CRF2-10, CRF2-X, and IL-22 RA2, is a 35–45 kDa secreted glycoprotein belonging to the Type II Cytokine Receptor Family (CRF). IL-22 signals through a receptor complex consisting of IL-22 R and IL-10 R $\beta$ . IL-10 R $\beta$  is also a component of the receptor complexes for IL-10, IL-26, IL-28, and IL-29 (1-4). IL-10 R $\beta$  is widely expressed, and other cell types express either IL-10 R $\alpha$  or IL-22 R but not both (5). The mouse IL-22BP cDNA encodes a 230 amino acid (aa) precursor that includes a 20 aa signal sequence and two fibronectin type-III domains (6). Mouse IL-22BP shares 59% and 85% aa sequence identity with human and rat IL-22BP, respectively. Among type II cytokine receptors, IL-22BP is most closely related to the extracellular domain of IL-22 R, sharing 36% aa sequence identity. Splice variants of human IL-22BP exist but have not been detected for the mouse protein (6-8). IL-22BP binds an epitope on IL-22 that is required for the interaction of IL-22 with the transmembrane IL-22 R (8-10), thereby preventing the association of IL-22 R with IL-10 R $\beta$  (10). IL-22BP blocks IL-22-induced responses including induction of MHC class I expression, Stat1 and Stat3 activation, SOCS3 gene expression, the production of reactive oxygen species (6, 9) and the modulation of the proinflammatory effects of IL-22 (11). Mouse IL-22 BP neutralizes both mouse and human IL-22 (6). IL-22BP is secreted by epithelial cells, dendritic cells, activated B cells, and activated monocytes (6, 8, 12, 13).

**References:**

1. Donnelly, R.P. *et al.* (2004) *J. Leukoc. Biol.* **76**:314.
2. Pestka, S. *et al.* (2004) *Annu. Rev. Immunol.* **22**:929.
3. Langer, J.A. *et al.* (2004) *Cytokine Growth Factor Rev.* **15**:33.
4. Kotenko, S.V. (2002) *Cytokine Growth Factor Rev.* **13**:223.
5. Wolk, K. *et al.* (2005) *Genes Immun.* **6**:8.
6. Wei, C.C. *et al.* (2003) *Genes Immun.* **4**:204.
7. Dumoutier, L. *et al.* (2001) *J. Immunol.* **166**:7090.
8. Xu, W. *et al.* (2001) *Proc. Natl. Acad. Sci. USA* **98**:9511.
9. Kotenko, S.V. *et al.* (2001) *J. Immunol.* **166**:7096.
10. Li, J. *et al.* (2004) *Int. Immunopharmacol.* **4**:693.
11. Whittington, H.A. *et al.* (2004) *Am. J. Respir. Cell Mol. Biol.* **31**:220.
12. Lecart, S. *et al.* (2002) *Int. Immunol.* **14**:1351.
13. Nagalakshmi, M.L. *et al.* (2004) *Int. Immunopharmacol.* **4**:577.