

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-22BP in direct ELISAs. In direct ELISAs, no cross-reactivity with mouse IL-22BP is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 875504
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-22BP Thr22-Pro263 Accession # Q969J5
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	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

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
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human peripheral blood mononuclear cell (PBMC) monocytes fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005)

PREPARATION AND STORAGE

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

BACKGROUND

Interleukin 22 Binding Protein (IL-22BP), also known as Cytokine Receptor Family (CRF) 2-10, CRF2-X, and IL-22 RA2, is a secreted glycoprotein belonging to the type II cytokine receptor family. It encodes a precursor protein of 231 amino acid (aa) residues with a 21 aa putative signal peptide and five potential N-linked glycosylation sites. IL-22BP lacks a transmembrane and cytoplasmic domain and is most closely related to the extracellular domains of IL-22 R (CRF2-9) and IL-20 R (CRF2-8), sharing 33% and 34% aa sequence identity, respectively. It also shares sequence homology with the extracellular domains of IL-10 R (29%), IL-10 Rβ (30%), the IFN receptors (23-25%) and tissue factor (26%). IL-22BP antagonizes IL-22 activity by specifically binding IL-22 with high affinity and blocking its interaction with the cell surface IL-22 receptor heteromeric complex composed IL-22 R and IL-20 R. IL-22BP is expressed in multiple tissues. The highest levels of expression are found in breast, lungs and colon. The major cell types producing IL-22BP are monocytes, activated B cells and epithelial cells (1), and is constitutively expressed by a subset of conventional dendritic cells (2). IL-22BP is regulated by the inflammasome and it has been suggested to modulate tumorigenesis in the intestine (3).

References:

- Xu, W. *et al.* (2001) Proc. Natl. Acad. Sci. USA **98**:9511.
- Martin, J. *et al.* (2014) Mucosal Immunol. **7**:101.
- Huber, S. *et al.* (2012) Nature **491**:259.

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