

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-1 RII in direct ELSAs and Western blots. When used in combination with the biotinylated human IL-1 RII affinity purified polyclonal detection antibody (Catalog # BAF263) in sandwich ELISAs, no significant cross-reactivity or interference was observed with recombinant human (rh) IL-1ra, rhIL-1 RI, recombinant mouse IL-1ra, or recombinant rat IL-1ra.
Source	Monoclonal Mouse IgG ₁ Clone # 34141
Purification	Protein A or G purified from ascites
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-1 RII Phe14-Glu343 (Ser56Gly and Glu297Gly) Accession # P27930
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	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.

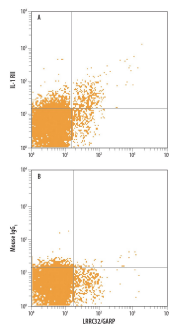
APPLICATIONS

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.

	Recommended Concentration	Sample
Flow Cytometry	5 µL/10 ⁶ cells	See Below

DATA

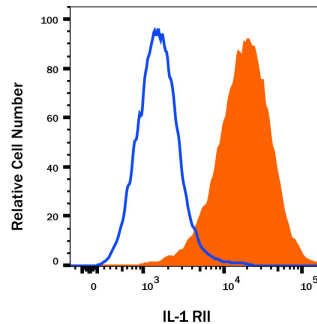
Flow Cytometry



Detection of IL-1 RII in Human PBMCs stimulated to induce Tregs by Flow Cytometry.

Human peripheral blood mononuclear cells (PBMCs), stimulated to induce Regulatory T Cells (Tregs) and gated on CD4⁺, were treated with 10 µg/mL Anti-CD3, 5 µg/mL Anti-CD28, 10 ng/mL Recombinant Human TGF-β1 (Catalog # 240-B), and 20 ng/mL Recombinant Human IL-2 (Catalog # 202-IL) for 48 hours and stained with Rat Anti-Human LRRC32/GARP PE-conjugated Monoclonal Antibody and either (A) Mouse Anti-Human IL-1 RII Alexa Fluor® 700-conjugated Monoclonal Antibody (Catalog # FAB663N) or (B) Mouse IgG₁Alexa Fluor 700 Isotype Control (Catalog # IC002N). View our protocol for [Staining Membrane-associated Proteins](#).

Flow Cytometry



Detection of IL-1 RII in HDLM-2 cells by Flow Cytometry
HDLM-2 cells were stained with Mouse Anti-Human IL-1 RII Alexa Fluor® 700-conjugated Monoclonal Antibody (Catalog # FAB663N, filled histogram) or isotype control antibody (Catalog # IC002N, open histogram). View our protocol for [Staining Membrane-associated Proteins](#).

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

Two distinct types of receptors that bind the pleiotropic cytokines IL-1 α and IL-1 β have been described. The IL-1 receptor type I is an 80 kDa transmembrane protein that is expressed predominantly by T cells, fibroblasts, and endothelial cells. IL-1 receptor type II is a 68 kDa transmembrane protein found on B lymphocytes, neutrophils, monocytes, large granular leukocytes, and endothelial cells. Both receptors are members of the immunoglobulin superfamily and show approximately 28% sequence similarity in their extracellular domains. The two receptor types do not heterodimerize in a receptor complex. An IL-1 receptor accessory protein that can heterodimerize with the type I receptor in the presence of IL-1 α or IL-1 β , but not IL-1 α , was identified (1). This type I receptor complex appears to mediate all the known IL-1 biological responses. The receptor type II has a short cytoplasmic domain and does not transduce IL-1 signals. In addition to the membrane-bound form of IL-1 RII, a naturally-occurring soluble form of IL-1 RII has been described. It has been suggested that the type II receptor, either as the membrane-bound or as the soluble form, serves as a decoy for IL-1 and inhibits IL-1 action by blocking the binding of IL-1 to the signaling type I receptor complex. Recombinant IL-1 soluble receptor type II is a potent antagonist of IL-1 action.

References:

1. Greenfeder, S. *et al.* (1995) J. Biol. Chem. **270**:13757.

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