

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-1 RI in ELISAs and Western blots. In sandwich immunoassays, less than 0.3% cross-reactivity with recombinant mouse IL-1 RI, recombinant human (rh) IL-1 RA, and rhIL-1 RII is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	recombinant human IL-1 RI
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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
Western Blot	0.1 µg/mL	Recombinant Human IL-1 RI (Catalog # 269-1R)
Human IL-1 RI Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human IL-1 RI Antibody (Catalog # MAB269)
ELISA Detection	0.1-0.4 µg/mL	Human IL-1 RI Biotinylated Antibody (Catalog # BAF269)
Standard		Recombinant Human IL-1 RI (Catalog # 269-1R)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 identity in their extracellular domains. The two receptor types do not heterodimerize into 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-1ra, 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.

References:

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