

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-1 R1 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 732229
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived human IL-1 RI Asp21-Thr332 Accession # P14778
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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

**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>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	HUVEC human umbilical vein endothelial cells

## 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> ● 12 months from date of receipt, 2 to 8 °C as supplied.

## BACKGROUND

Two distinct types of receptors that bind the pleiotropic cytokines IL-1α and IL-1β 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-1α or IL-1β 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. Recombinant IL-1 soluble receptor Type I is a potent antagonist of IL-1 action.

## References:

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

## PRODUCT SPECIFIC NOTICES

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