Mouse IL-1ra/IL-1F3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-480-NA

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-1ra/IL-1F3 in ELISAs and Western blots. In sandwich ELISAs, approximately 45% cross-reactivity with recombinant rat IL-1ra/IL-1F3 and less than 1% cross-reactivity with recombinant human IL-1ra/IL-1F3, recombinant porcine IL-1ra/IL-1F3, and recombinant equine IL-1ra/IL-1F3 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse IL-1ra/IL-1F3
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

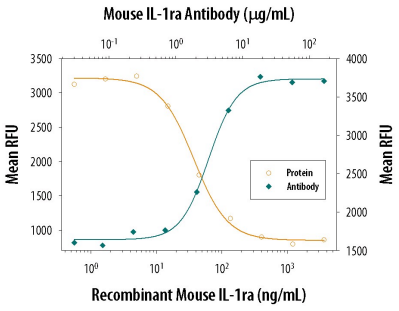
APPLICATIONS

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 Mouse IL-1ra/IL-1F3 (Catalog # 480-RM)
Mouse IL-1ra/IL-1F3 Sandwich Immunoassay		**Reagent**
ELISA Capture	0.2-0.8 µg/mL	Mouse IL-1ra/IL-1F3 Antibody (Catalog # AF-480-NA)
ELISA Detection	0.1-0.4 µg/mL	Mouse IL-1ra/IL-1F3 Biotinylated Antibody (Catalog # BAF480)
Standard		Recombinant Mouse IL-1ra/IL-1F3 (Catalog # 480-RM)
Neutralization	Measured by its ability to neutralize IL-1ra/IL-1F3 inhibition of IL-1α/IL-1F1-dependent proliferation in the D10.G4.1 mouse helper T cell line [Symons, J.A. *et al.* (1987) in Lymphokines and Interferons, a Practical Approach. Clemens, M.J. *et al.* (eds): IRL Press. 272]. The Neutralization Dose (ND_{50}) is typically 1-5 µg/mL in the presence of 150 ng/mL Recombinant Mouse IL-1ra/IL-1F3, 50 pg/mL Recombinant Human IL-1α/IL-1F1 and 1.25 µg/mL concanavalin A.	

DATA

Neutralization



IL-1ra/IL-1F3 Inhibition of IL-1α/IL-1F1-dependent Cell Proliferation and Neutralization by Mouse IL-1ra/IL-1F3 Antibody. Recombinant Mouse IL-1ra/IL-1F3 (Catalog # 480-RM) inhibits Recombinant Human IL-1α/IL-1F1 (Catalog # 200-LA) induced proliferation in the D10.G4.1 mouse helper T cell line in a dose-dependent manner (orange line). Inhibition of Recombinant Human IL-1α/IL-1F1 (50 pg/mL) activity elicited by Recombinant Mouse IL-1ra/IL-1F3 (150 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse IL-1ra/IL-1F3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-480-NA). The ND_{50} is typically 1-5 µg/mL in the presence of concanavalin A (1.25 µg/mL).

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	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

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BACKGROUND

IL-1ra was originally isolated from the urine of patients with monocytic leukemia and has also been purified from adherent monocytes. The naturally-occurring, fully glycosylated form has an apparent molecular weight of about 25,000 Daltons. The protein shows 26% amino acid homology to IL-1β and 19% homology to IL-1α. It will compete with either factor for receptor binding, but does not interact with either one. Human IL-1ra will bind to both types of IL-1 receptor (I and II) on human cells. In mouse, IL-1 RII does not bind IL-1ra. The recombinant, non-glycosylated form of IL-1ra blocks binding of IL-1 to its receptor equally as well as the naturally-occurring, glycosylated form. The IL-1ra has been shown to block the inflammatory responses induced by IL-1 both *in vitro* and *in vivo*. Pre-clinical and clinical studies were done to test possible therapeutic applications for IL-1ra in the treatment of sepsis, rheumatoid arthritis and chronic myelogenous leukemia.