

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-1 α /IL-1F1 in ELISAs. In ELISAs, less than 1% cross-reactivity with recombinant rat IL-1 α /IL-1F1, recombinant porcine IL-1 α /IL-1F1, and recombinant human IL-1 α /IL-1F1 is observed.
Source	Monoclonal Rat IgG _{2B} Clone # 40508
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse IL-1 α /IL-1F1 Ser115-Ser270 Accession # P01582
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.

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

BACKGROUND

IL-1 is a name that designates two proteins, IL-1 α and IL-1 β , that are the products of distinct genes, but recognize the same cell surface receptors. IL-1 α and IL-1 β are structurally related polypeptides that show approximately 25% homology at the amino acid level. Both proteins are produced by a wide variety of cells in response to stimuli such as those produced by inflammatory agents, infections, or microbial endotoxins. The proteins are synthesized as 31 kDa precursors that are subsequently cleaved into proteins with molecular weights of approximately 17.5 kDa. The specific protease responsible for the processing of IL- β , designated interleukin 1 β -converting enzyme (ICE), has been described. Mature human and mouse IL-1 β share approximately 75% amino acid sequence identity and human IL-1 β has been found to be active on murine cell lines.

IL-1 α and IL-1 β are potent pro-inflammatory cytokines that induce a wide variety of biological activities on different cell types. Two distinct types of IL-1 receptors have been identified and cloned from human and mouse cells. The IL-1 receptor type I is a 80 kDa transmembrane protein with demonstrated IL-1 signaling function. The IL-1 receptor type II is a 68 kDa membrane protein with a relatively short cytoplasmic tail and has no signaling function. The type II receptor acts as a decoy target for IL-1, inhibiting IL-1 activities by preventing the binding of IL-1 to the type I receptor. A soluble version of the type II receptor is induced by anti-inflammatory agents such as glucocorticoids, IL-4, and IL-13.

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