

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat IL-1 Rrp2/IL-1 R6 in direct ELISAs and Western blots. In direct ELISAs and Western blots, 100% cross-reactivity with recombinant human (rh) IL-1 Rrp2 is observed and no cross-reactivity with recombinant mouse (rm) IL-1
Source	Monoclonal Mouse IgG ₁ Clone # 131011
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat IL-1 Rrp2/IL-1 R6 Gly22-Tyr340 Accession # Q62929
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.

Western Blot 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

The Interleukin 1 receptor family (IL-1 R) comprises at least eleven members including IL-1 RI (IL-1 R1), IL-1 RII (IL-1 R2), IL-1 RAcP (IL-1 R3), ST2 (T1/IL-1 R4), IL-18 Ra (IL-1 Rrp/IL-1 R5), IL-1 Rrp2 (IL-1 RL2/IL-1 R6), IL-18 Rb (AcPL/IL-1 R7), IL-1RAPL-1 (TIGIRR-2/IL-1 R8), and TIGIRR-1 (IL-1 R9) (1). All family members possess three immunoglobulin (Ig)-like domains in their extracellular region. Most members also have an intracellular TIR (Toll-like receptor/IL-1 receptor signaling) domain that is also conserved in the Toll-like receptor family. Related proteins, SIGIRR (single Ig domain-containing IL-1 R-related molecule) and IL-18BP, differ from the other members by having only one Ig domain (1). Rat IL-1 Rrp2 cDNA encodes a 561 amino acid (aa) residue precursor protein with a putative 21 aa signal peptide and a 319 aa extracellular domain. It shares 84% and 67% amino acid sequence identity with mouse and human IL-1 Rrp2, respectively. IL-1 Rrp2 is expressed in lung epithelium, brain vasculature, kidney, testis, monocytes, skin-derived keratinocytes, fibroblasts and, to a lesser extent, endothelial cells (2, 3). IL-1 Rrp2 has been shown to mediate the activation of the transcription factor NF-κB by the IL-1 family ligands IL-1 F6, F8 or F9 (also known as IL-1e), with IL-1 RAcP as a co-factor (3, 4). Response to IL-1 F9 is specifically antagonized by IL-1 F5 (also known as IL-1d), an IL-1 family ligand that is most closely related to IL-1ra (3). IL-1 Rrp2, IL-1 F5, and IL-1 F9 are all up-regulated in lesional psoriasis skin, suggesting that the IL-1 Rrp2 mediated signaling pathway may take part in local inflammatory responses (3).

PRODUCT SPECIFIC NOTICES

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