Human IL-1 Rrp2/IL-1 R6 Antibody

Monoclonal Mouse IgG_1 Clone # 116015

Catalog Number: MAB872

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-1 Rrp2/IL-1 R6 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant rat IL-1 Rrp2, recombinant human (rh) IL-1 RI, rhIL-1 RII, rhIL-18 R, rhIL-18 RAcp, and rhIL-18 AcpLR is observed.
Source	Monoclonal Mouse IgG_1 Clone # 116015
Purification	Protein A or G purified from ascites
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-1 Rrp2/IL-1 R6 Asp20-Tyr337 Accession # Q9HB29
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

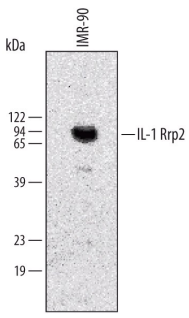
APPLICATIONS

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	1 µg/mL	See Below

DATA

Western Blot



Detection of Human IL-1 Rrp2/IL-1 R6 by Western Blot. Western blot shows lysates of IMR-90 human lung fibroblast cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human IL-1 Rrp2/IL-1 R6 Monoclonal Antibody (Catalog # MAB872) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for IL-1 Rrp2/IL-1 R6 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 9 (with 2% milk instead of BSA in the Antibody Solution).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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). Human IL-1 Rrp2 cDNA encodes a 561 amino acid (aa) residue precursor protein with a putative 19 aa signal peptide and a 318 aa extracellular domain. It shares 67% and 65% amino acid sequence identity with rat and mouse IL 1 Rrp2, respectively. IL-1 Rrp2 is expressed in lung epitheium, brain vasculature, kidney, testis, onocytes, 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 NFκB by the IL-1 family ligands IL-1 F6, F8 or F9 (also known as IL-1ε), with IL-1RAcP as a co-factor (3, 4). Response to IL-1 F9 is specifically antagonized by IL-1 F5 (also known as IL-1δ), 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).

References:

1. Boraschi, D. and A. Tagliabue (2006) Vitam. Horm. **74**:229.
2. Lovenberg, T. W. *et al.* (1996) J. Neuroimmunol. **70**:113.
3. Debets, R. *et al.* (2001) J. Immunol. **167**:1440.
4. Towne, J. E. *et al.* (2004) J. Biol. Chem. **279**:13677.