

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-1RAcP/IL-1 R3 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-1 RI, rhIL-1 RII, rhST2, rhIL-18 R α , IL-1 Rrp2, rhIL-18 RAP, rhSIGIRR, rhIL-1 RAPL1, rhIL-1 RAPL2, rhTLR1, rhTLR2, rhTLR3, rhTLR4, rhTLR5, rhTLR7, rhTLR8, rhTLR9, rhTLR10, rhMD-1, rhMD-2, or recombinant mouse RP105 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 89412
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf21-derived recombinant human IL-1RAcP/IL-1 R3 Ser21-Glu359 (predicted) Accession # Q9NPH3
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human peripheral blood monocytes

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

IL-1 Receptor Accessory Protein (also IL-1 R3) is a ubiquitous 70-90 kDa member of the interleukin-1 receptor family of proteins (1-5). It serves as a non-ligand-binding accessory component of the receptors for IL-1 α , IL-1 β , and IL-33 (6, 7). Together with IRAK4 and MyD88, it generates a functional signaling complex with IL-1 RI; by itself, it generates a non-signaling, but high-affinity binding complex with IL-1 RII (8). In addition, it interacts with ST2 on mast cells and Th2 T cells to create a functional IL-33 receptor complex (7). Mature human IL-1 RAcP is a type I transmembrane glycoprotein that is 550 amino acids in length. It contains a 347 amino acid (aa) extracellular region (aa 21-367), a 21 aa transmembrane segment, and a 182 aa cytoplasmic domain (9). The extracellular region shows three C2-type Ig-like domains, the most membrane proximal of which is suggested to be responsible for dimerization with IL-1 RI (10). There are three alternative splice forms reported for IL-1 RAcP. One is transmembrane and shows a 239 aa substitution for the C-terminal 122 amino acids (11). The other two are soluble; one shows a six aa substitution for aa 351-570, while a second shows a 45 aa substitution for aa 302-579 (12, 13). The soluble receptor isoforms appear to be inhibitory to IL-1 signaling. When present with soluble IL-1 RII, soluble IL-1 RAcP increases the IL-1 binding affinity of IL-1 RII more than 100-fold, thus neutralizing the effects of IL-1 (14). The human and mouse IL-1 RAcP precursors are 89% aa identical; within the extracellular region, they share 86% aa identity.

References:

- Subramaniam, S. *et al.* (2004) *Dev. Comp. Immunol.* **28**:415.
- Boraschi, D. and A. Tagliabue (2006) *Vitam. Horm.* **74**:229.
- Dunne, A. and L.A.J. O'Neill (2003) *Sci STKE.* Feb 25;2003(171):re3.
- Huang, J. *et al.* (1997) *Proc. Natl. Acad. Sci. USA* **94**:12829.
- Greenfeder, S. A. *et al.* (1995) *J. Biol. Chem.* **270**:13757.
- Brikos, C. *et al.* (2007) *Mol. Cell. Proteomics* **6**:1551.
- Chackerian, A.A. *et al.* (2007) *J. Immunol.* **179**:2551.
- Lang, D. *et al.* (1998) *J. Immunol.* **161**:6871.
- SwissProt. Accession # Q9NPH3.
- Yoon, D-Y. and C.A. Dinarello (1998) *J. Immunol.* **160**:3170.
- Lu, H-L. *et al.* (2008) *Mol. Immunol.* **45**:1374.
- Jensen, L.E. *et al.* (2000) *J. Immunol.* **164**:5277.
- Jensen, L.E. and A.S. Whitehead (2003) *Cell. Signal.* **15**:793.
- Smith, D.E. *et al.* (2003) *Immunity* **18**:87.

Human IL-1 RAcP/IL-1 R3 Alexa Fluor® 405-conjugated Antibody

Monoclonal Mouse IgG₁ Clone # 89412

Catalog Number: FAB676V
100 µg

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.