

## DESCRIPTION

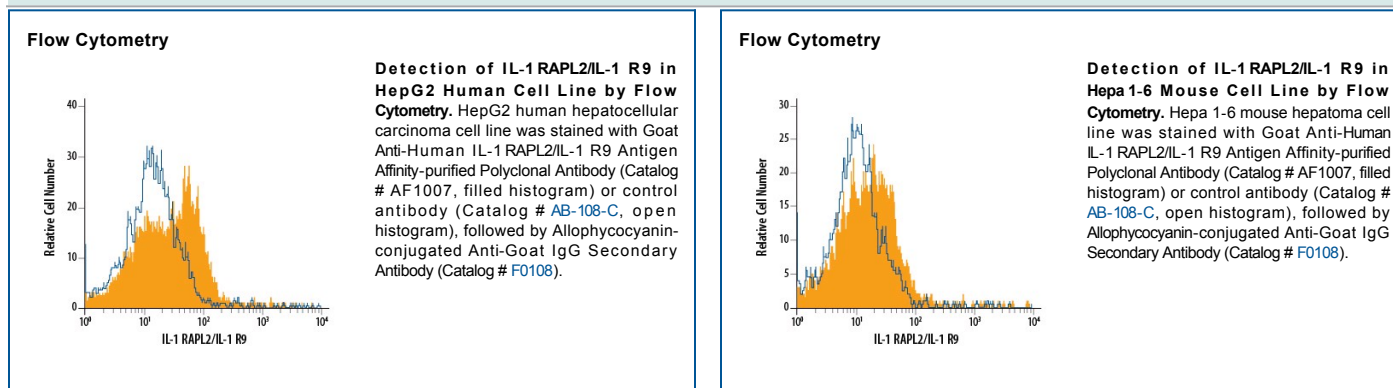
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-1 RAPL2/IL-1 R9 in direct ELISAs and Western blots. In direct ELISAs, approximately 35% cross-reactivity with recombinant mouse IL-1 RAPL2/IL-1 R9 is observed. In Western blots, approximately 5% cross-reactivity with recombinant human (rh) IL-1 R7 is observed and less than 1% cross-reactivity with rhIL-1 R2 and rhIL-1 R8 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-1 RAPL2/IL-1 R9 Thr17-Glu356 Accession # Q9NP60
<b>Formulation</b>	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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human IL-1 RAPL2/IL-1 R9 Fc Chimera (Catalog # 1007-MR)
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human liver and skin

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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 Rα (IL-1 Rrp/IL-1 R5), IL-1 Rrp2 (IL-1 RL2/IL-1 R6), IL-18 Rβ (AcPL/IL-1 R7), IL-1 RAPL1 (TIGIRR-2/IL-1 R8), and IL-1 RAPL2 (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). IL-1 receptor accessory protein-like 2 (IL-1 RAPL2) is alternately known as IL-1 R9 and three immunoglobulin domain containing IL-1 receptor-related molecule 1 (TIGIRR-1) and is expressed in the brain (2). Its sequence predicts an 686 amino acid (aa) residue type I transmembrane glycoprotein with a 17 aa signal peptide, a 339 aa extracellular region containing three Ig-like domains, an 18 aa transmembrane domain and a 312 aa cytoplasmic tail (3). By comparison to other IL-1 receptor family proteins, IL-1 RAPL2 has a C-terminal cytoplasmic extension beyond the TIR domain that is found in IL-1 RAPL1 and SIGIRR but not other family members (3). Human and mouse IL-1 RAPL2 share approximately 95% aa sequence identity. Human IL-1 RAPL2 is most homologous (63%) to IL-1 RAPL1, a receptor protein that is highly expressed in hippocampus and is involved in X-linked mental retardation (4, 5). Genes for both have been localized to human chromosome Xq22. A ligand for IL-1 RAPL2 has not been identified (1).

## References:

1. Boraschi, D. and A. Tagliabue (2006) *Vitam. Horm.* **74**:229.
2. Andre, R. *et al.* (2005) *J. Neurochem.* **95**:324.
3. Born, T.L. *et al.* (2000) *J. Biol. Chem.* **275**:29946.
4. Jin, H. *et al.* (2000) *Eur. J. Hum. Genet.* **8**:87.
5. Carrie, A. *et al.* (1999) *Nat. Genet.* **23**:25.