

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-1 RAPL2 in ELISA.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 167720
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-1 RAPL2 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. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

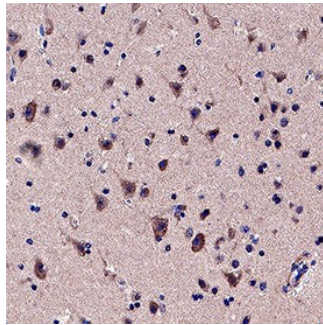
## APPLICATIONS

**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
Immunohistochemistry	5-25 µg/mL	Immersion fixed paraffin-embedded sections of human brain (cortex)

## DATA

### Immunohistochemistry



**IL1RAPL2 in Human Brain (Cortex).**  
IL1RAPL2 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using Mouse Anti-Human IL1RAPL2 Monoclonal Antibody (Catalog # MAB10071) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cell bodies. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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 R $\alpha$  (IL-1 Rrp/IL-1 R5), IL-1 Rrp2 (IL-1 RL2/IL-1 R6), IL-18 R $\beta$  (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.