

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse RAMP2 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human RAMP2 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 773816
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse RAMP2 Ser45-Val159 Accession # Q9WUP0
Formulation	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
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>	<p>Detection of RAMP2 in bEnd.3 Mouse Cell Line by Flow Cytometry. bEnd.3 mouse endothelioma cell line is stained with Rat Anti-Mouse RAMP2 Monoclonal Antibody (Catalog # MAB6500, filled histogram) or isotype control antibody (Catalog # MAB006, open histogram), followed by Allophycocyanin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0113).</p>	<p>Immunohistochemistry</p>	<p>RAMP2 in Mouse Lung. RAMP2 was detected in perfusion fixed frozen sections of mouse lung using Rat Anti-Mouse RAMP2 Monoclonal Antibody (Catalog # MAB6500) at 25 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to epithelial cells. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.</p>
------------------------------	--	------------------------------------	---

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 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

RAMP2 (receptor activity modifying protein 2) is a 20 kDa member of the RAMP family of proteins. It is expressed on cardiomyocytes, vascular smooth muscle cells and endothelium and interacts with CRLR to form a receptor complex for adrenomedullin (AM). AM induces vasodilation on AM1 receptor expressing cells. Mature mouse RAMP2 is a 145 amino acid (aa) type I transmembrane glycoprotein that contains a 115 aa extracellular domain (ECD) (aa 45-159) and a nine aa cytoplasmic region. Although the ECD contains no typical structural motifs, based on human, aa 100-106 are critical for AM binding. Over aa 45-159, mouse RAMP2 shares 57% and 83% aa identity with human and rat RAMP2, respectively.