Anti-Human CALRL Monoclonal Antibody
Product Code: CABh-25327
Clone: 6B1-3(A8)
For Research Use Only (RUO)

Alternate Names	CALCRL, CGRPR, CRLR, LMPHM8
Isotype	IgG2a
Conjugate	Unconjugated
Background	Human calcitonin receptor-like receptor (CALRL), is a 7-transmembrane G protein-coupled receptor (GPCR). It is a Class B GPCR that plays a critical role in cardiovascular, lymphatic, and nervous system physiology. Unlike many GPCRs, CALRL requires association with receptor activity-modifying proteins (RAMPs) to determine its ligand specificity and functional identity. Upon ligand binding, CALRL primarily activates guanine nucleotide-binding proteins (G proteins), leading to increased intracellular cyclic AMP (cAMP) levels and downstream signaling cascades. These pathways influence processes such as vasodilation, cell proliferation, and fluid homeostasis. Clinically, CALRL is significant due to its involvement in diseases like migraine, cardiovascular disorders, and cancer. CGRP receptor antagonists targeting the CALRL-RAMP1 complex have become effective therapies for migraine treatment. Additionally, dysregulation of adrenomedullin signaling through CALRL has been linked to tumor progression and poor prognosis in certain cancers. Human CALRL protein has ~90% sequence homology with mouse CALRL.

Product Details

Specificity	Detects human calcitonin receptor-like receptor/CALRL transfectants but not irrelevant transfectants in flow cytometry.
Antibody Type	Monoclonal antibody
Host Species	Mouse
Immunogen	CALRL N-terminus extracellular domain, the exact sequence of the immunogen is proprietary.; UniProt # Q16602
Formulation / Storage buffer	0.22µm filtered PBS, pH 7.4
Shipping	Frozen Dry Ice
Purification	Affinity Purification

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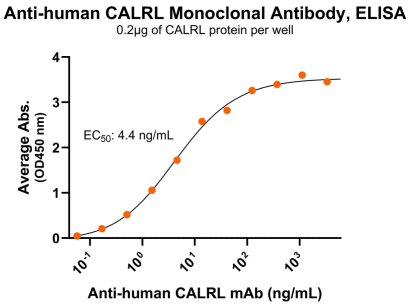
Stability & Storage	-80'C
Verified Application	ELISA, Flow Cytometry
Recommended Usage	ELISA: starting concentration 1 µg/mL. Flow cytometry: 0.8 µg/1E6 cells

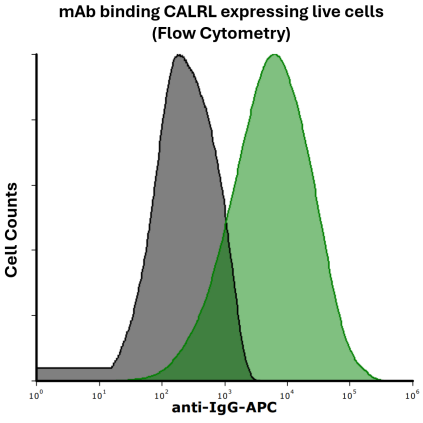
Bioactive Data, Detection of Antigen by:

ELISA



Immobilized human CALRL fragment at 2 µg/mL (100 µL/well) can bind Mouse Anti-Human CALRL Monoclonal Antibody (Cat. No. CABh-25327) with half maximal effective concentration (EC50) range of 2.2-8.8 ng/mL (QC tested).

Flow Cytometery



Detection of CALRL in HEK293 human cell line transiently transfected with human CALRL by Flow Cytometry. HEK293 cell line transfected with human CALRL was stained with isotype control (black curve) or Mouse Anti-Human CALRL Monoclonal Antibody (Cat. No. CABh-25327) (green curve) by APC-conjugated Anti-Mouse IgG Secondary Antibody.

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Antigen Details

Structure	7-transmembrane protein, G protein-coupled receptor (GPCR)
Function	Mainly in vascular biology + neuropeptide signaling
Ligand / Receptor	Calcitonin Gene-Related Peptide (CGRP)
Cell Type	Wide distribution, especially cardiovascular, lymphatic, and nervous system
Molecular Family	G protein-coupled receptor
Gene ID	Q16602