Anti-Human ACKR3 Monoclonal Antibody
Product Code: CABh-25380
Clone: 2E12-D7
For Research Use Only (RUO)

Alternate Names	CMKOR1, CXC-R7, CXCR-7, CXCR7, GPR159, RDC-1, RDC1
Isotype	IgG2a
Conjugate	Unconjugated
Background	Human atypical chemokine receptor 3 (ACKR3) is also known as C-X-C chemokine receptor type 7 (CXCR-7) and G-protein coupled receptor 159 (GPR159). It is a 7-transmembrane G protein-coupled receptor (GPCR); a Class A GPCR. ACKR3/CXCR7 triggers signaling pathways solely mediated by β- arrestin. ACKR3/CXCR7 is known as an “interceptor” (internalizing receptor) or chemokine-scavenging receptor or chemokine decoy receptor resulting in chemokine sequestration. Upon chemokine binding to ACKR3/CXCR7 beta-arrestin recruitment is induced, leading to ligand internalization and activation of MAPK signaling pathway. ACKR3/CXCR7 is a therapeutic target due to being a coreceptor for human immunodeficiency viruses (HIV). Human ACKR3 protein has >90% sequence homology with mouse ACKR3.

Product Details

Specificity	Detects human atypical chemokine receptor 3 ACKR3/CXCR7 transfectants but not irrelevant transfectants in flow cytometry.
Antibody Type	Monoclonal antibody
Host Species	Mouse
Immunogen	ACKR3/CXCR7 N-terminus, the exact sequence of the immunogen is proprietary.; UniProt # P25106
Formulation / Storage buffer	Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4 with 10% trehalose as protectant

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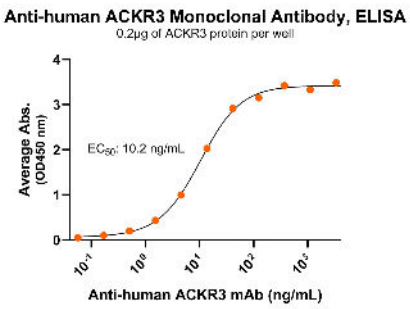
Reconstitution	For best performance, we strongly recommend you reconsitute the lyophilized product with deionized water to a stock solution of 500 µg/mL. Solubilize for 20 minutes at room temperature with occasional gentle mixing. Avoid shaking or vortexing. For 25µg product size: Reconstitute with 50 µL sterile deionized water. For 100µg product size: Reconstitute with 200 µL sterile deionized water.
Shipping	Frozen Ice Packs
Purification	Affinity Enrichment
Stability & Storage	-20'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 ACKR3 fragment at 2 µg/mL (100 µL/well) can bind Mouse Anti-Human ACKR3 Monoclonal Antibody (Cat. No. CABh-25380) with half maximal effective concentration (EC50) range of 5.1-20.4 ng/mL (QC tested).

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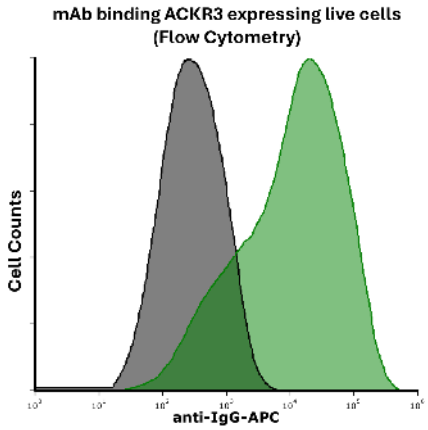
Flow Cytometery



Detection of ACKR3 expressed on HEK293 cell surface transiently transfected with full-length human ACKR3 by Flow Cytometry. HEK293 cell line transfected with human ACKR3 was stained with isotype control (black curve) or mouse Anti-Human ACKR3 Monoclonal Antibody (Cat. No. CABh-25380) (green curve) by APC-conjugated Anti-Mouse IgG Secondary Antibody.

Antigen Details

Structure	7-transmembrane protein, G protein-coupled receptor (GPCR)
Function	ligand internalization and activation of MAPK signaling pathway
Ligand / Receptor	CXCL12/SDF-1, CXCL11, macrophage inhibitory factor (MIF), adrenomedullin (ADM), opioid peptides, viral chemokine vCCL2
Cell Type	monocytes, basophils, B-cells, umbilical vein endothelial cells (HUVEC) and B-lymphoblastoid cells with lower expression detected in CD4+ T-lymphocytes and natural killer cells
Molecular Family	G protein-coupled receptor, chemokine receptor
Gene ID	P25106