10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CXCR7 Antibody

Rabbit mAb
Catalog # AP90689

Product Information

Application	WB, FC
Primary Accession	P25106
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	CMKOR1; RDC1; CXCR7; GPR159; GPRN1; ACKR3;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	41493

Additional Information

Dilution	WB 1:500~1:2000 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CXCR7
Description	Plays a regulatory role in CXCR4-mediated activation of cell surface integrins by CXCL12. Required for heart valve development. Acts as coreceptor with CXCR4 for a restricted number of HIV isolates.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	ACKR3 (HGNC:23692)
Function	Atypical chemokine receptor that controls chemokine levels and localization via high-affinity chemokine binding that is uncoupled from classic ligand-driven signal transduction cascades, resulting instead in chemokine sequestration, degradation, or transcytosis. Also known as interceptor (internalizing receptor) or chemokine-scavenging receptor or chemokine decoy receptor. Acts as a receptor for chemokines CXCL11 and CXCL12/SDF1 (PubMed:16107333, PubMed:19255243, PubMed:19380869, PubMed:20161793, PubMed:22300987). Chemokine binding does not activate G protein-mediated signal transduction but instead induces beta-arrestin recruitment, leading to ligand internalization and activation of MAPK signaling pathway (PubMed:16940167, PubMed:18653785, PubMed:20018651). Required for regulation of CXCR4 protein levels in migrating interneurons, thereby adapting their chemokine responsiveness (PubMed:16940167, PubMed:18653785). In glioma cells, transduces signals via MEK/ERK pathway, mediating resistance to apoptosis. Promotes cell growth and survival (PubMed:16940167, PubMed:20388803). Not involved in cell migration,

adhesion or proliferation of normal hematopoietic progenitors but activated by CXCL11 in malignant hemapoietic cells, leading to phosphorylation of ERK1/2 (MAPK3/MAPK1) and enhanced cell adhesion and migration (PubMed:17804806, PubMed:18653785, PubMed:19641136, PubMed:20887389). Plays a regulatory role in CXCR4-mediated activation of cell surface integrins by CXCL12 (PubMed:18653785). Required for heart valve development (PubMed:17804806). Regulates axon guidance in the oculomotor system through the regulation of CXCL12 levels (PubMed:31211835). Acts as a receptor for SHLP2, mediating its effects on activation of proopiomelanocortin neurons in the arcuate nucleus of the hypothalamus which leads to suppression of food intake and increased energy expenditure (PubMed:37468558).

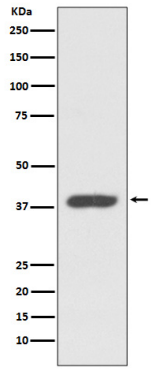
Cellular Location

Cell membrane; Multi-pass membrane protein. Early endosome. Recycling endosome. Note=Predominantly localizes to endocytic vesicles, and upon stimulation by the ligand is internalized via clathrin-coated pits in a beta-arrestin-dependent manner. Once internalized, the ligand dissociates from the receptor, and is targeted to degradation while the receptor is recycled back to the cell membrane.

Tissue Location

Expressed in monocytes, basophils, B-cells, umbilical vein endothelial cells (HUVEC) and B-lymphoblastoid cells Lower expression detected in CD4+ T-lymphocytes and natural killer cells. In the brain, detected in endothelial cells and capillaries, and in mature neurons of the frontal cortex and hippocampus. Expressed in tubular formation in the kidney. Highly expressed in astroglial tumor endothelial, microglial and glioma cells. Expressed at low levels in normal CD34+ progenitor cells, but at very high levels in several myeloid malignant cell lines. Expressed in breast carcinomas but not in normal breast tissue (at protein level).

Images



Western blot analysis of CXCR7 expression in K562 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.