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ACKR3 / CXCR7 Antibody (aa311-360)

Rabbit Polyclonal Antibody
Catalog # ALS13684

Specification

ACKR3 / CXCR7 Antibody (aa311-360) - Product Information

Application	**IF, IHC**
Primary Accession	P25106
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**41kDa KDa**

ACKR3 / CXCR7 Antibody (aa311-360) - Additional Information

Gene ID 57007

Other Names
Atypical chemokine receptor 3, C-X-C chemokine receptor type 7, CXC-R7, CXCR-7, Chemokine orphan receptor 1, G-protein coupled receptor 159, G-protein coupled receptor RDC1 homolog, RDC-1, ACKR3, CMKOR1, CXCR7, GPR159, RDC1

Target/Specificity
CXCR7 Antibody detects endogenous levels of total CXCR7 protein.

Reconstitution & Storage
Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions
ACKR3 / CXCR7 Antibody (aa311-360) is for research use only and not for use in diagnostic or therapeutic procedures.

ACKR3 / CXCR7 Antibody (aa311-360) - 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).

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).

Volume
50 µl

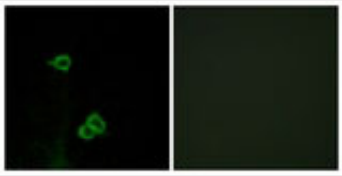
ACKR3 / CXCR7 Antibody (aa311-360) - Protocols

Provided below are standard protocols that you may find useful for product applications.

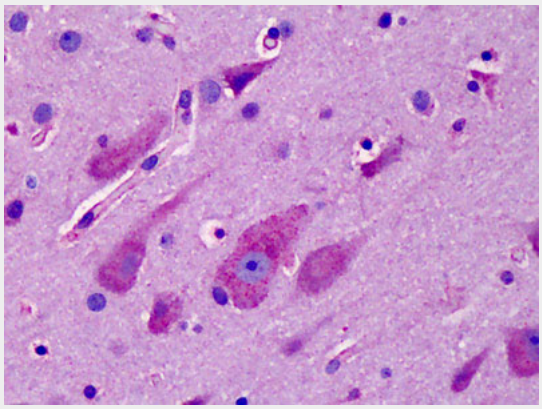
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

- Cell Culture

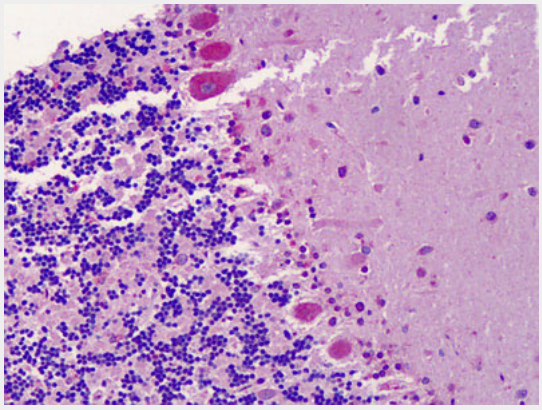
ACKR3 / CXCR7 Antibody (aa311-360) - Images



Immunofluorescence of COS7 cells, using CXCR7 Antibody.



Anti-CXCR7 antibody IHC of human brain, cortex.



Anti-CXCR7 antibody IHC of human brain, cerebellum.

ACKR3 / CXCR7 Antibody (aa311-360) - Background

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. 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. Required for regulation of CXCR4 protein levels in migrating interneurons, thereby adapting their chemokine responsiveness. In glioma cells, transduces signals via MEK/ERK pathway, mediating resistance to apoptosis. Promotes cell growth and survival. 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. 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.

ACKR3 / CXCR7 Antibody (aa311-360) - References

Sreedharan S.P.,et al.Proc. Natl. Acad. Sci. U.S.A. 88:4986-4990(1991).
Oates E.L.,et al.Submitted (OCT-1996) to the EMBL/GenBank/DDBJ databases.
Bi A.,et al.Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
Martin A.L.,et al.Submitted (JUN-2006) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).