abcam

ab324431

Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR29064-191
Purification technique	Affinity purification Protein A
Concentration	0.526 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Transfected cell line - Human
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Transfected cell line - Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Transfected cell line - Human

Dilution info	-
Notes	-

Target data

See full target information ACKR3

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). (Microbial infection) Acts as a coreceptor with CXCR4 for a restricted number of HIV isolates.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

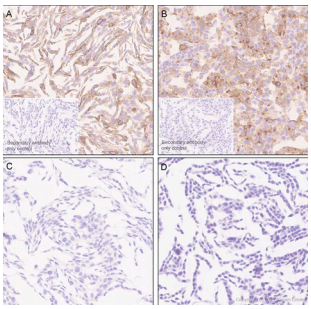
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

GPCR RDC1/CXCR-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GPCR RDC1/CXCR-7 antibody

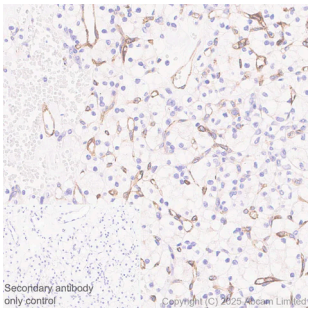
Immunohistochemical analysis of paraffin-embedded (A) MCF7 (human breast adenocarcinoma epithelial cell) cell pellet (B) LNcap (human prostate carcinoma epithelial cell) cell pellet (C) T-47D (human ductal breast epithelial tumor epithelial cell) cell pellet (D) HT-29 (human colorectal adenocarcinoma epithelial cell) cell pellet tissue labeling GPCR RDC1/CXCR-7 with ab324431 at 1/1000 (0.511 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on A: MCF7 cell pellet and B: LNcap cell pellet, no staining on C: T-47D cell pellet and D: HT-29 cell pellet (PMID: 25168820, PMID: 20388803). The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

GPCR RDC1/CXCR-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human clear cell carcinoma using rabbit Anti-GPCR RDC1/CXCR-7 antibody

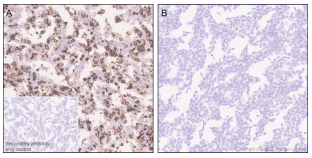
Immunohistochemical analysis of paraffin-embedded Human clear cell carcinoma tissue labeling GPCR RDC1/CXCR-7 with ab324431 at 1/1000 (0.511 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on blood vessels in human clear cell carcinoma. The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

GPCR RDC1/CXCR-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GPCR RDC1/CXCR-7 antibody

Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human embryonic kidney epithelial cell) transfected with a human CXCR7 expression vector containing a his tag. (B) HEK-293T transfected with empty vector containing a his tag. tissue labeling GPCR RDC1/CXCR-7 with ab324431 at 1/1000 (0.511 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

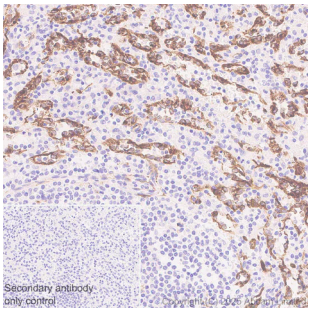
Positive staining on (A) HEK-293T transfected with a human CXCR7 expression vector containing a his tag, no staining on (B) HEK-293T transfected with empty vector containing a his tag. The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

---



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

GPCR RDC1/CXCR-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human spleen using rabbit Anti-GPCR RDC1/CXCR-7 antibody

Immunohistochemical analysis of paraffin-embedded Human spleen tissue labeling GPCR RDC1/CXCR-7 with ab324431 at 1/1000 (0.511 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

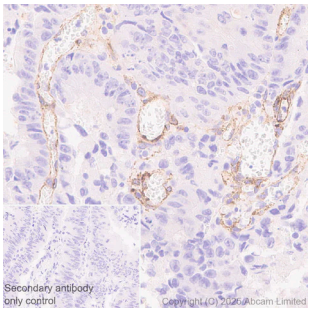
Positive staining on blood vessels in human spleen. The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

---



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

GPCR RDC1/CXCR-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human colon carcinoma using rabbit Anti-GPCR RDC1/CXCR-7 antibody

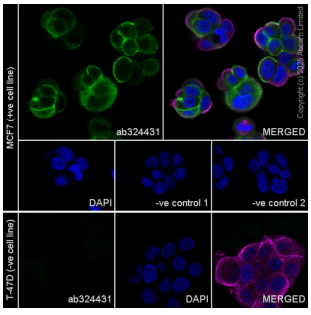
Immunohistochemical analysis of paraffin-embedded Human colon carcinoma tissue labeling GPCR RDC1/CXCR-7 with ab324431 at 1/1000 (0.511 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on blood vessels in human colon carcinoma. The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

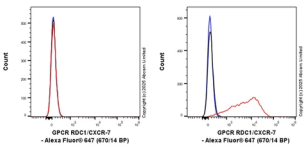
GPCR RDC1/CXCR-7 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GPCR RDC1/CXCR-7 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized MCF7 (human breast adenocarcinoma epithelial cell) cells labelling GPCR RDC1/CXCR-7 with ab324431 at 1/500 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing mambrane and cytoplasmic staining in MCF7 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Negative control: T-47D (PMID: 25168820).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



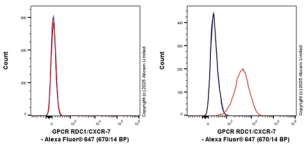
Flow Cytometry - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

GPCR RDC1/CXCR-7 Flow Cytometry staining using rabbit Anti-GPCR RDC1/CXCR-7 antibody

Flow cytometric analysis of T-47D (human ductal breast epithelial tumor epithelial cell, Left) / MCF7 (human breast adenocarcinoma epithelial cell, Right) cells labelling GPCR RDC1/CXCR-7 with ab324431 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat anti-Rabbit IgG (Alexa Fluor® 647, ab150083) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells.
Negative control: T-47D (PMID: 25168820).



Flow Cytometry - Anti-GPCR RDC1/CXCR-7 antibody [EPR29064-191] (ab324431)

GPCR RDC1/CXCR-7 Flow Cytometry staining using rabbit Anti-GPCR RDC1/CXCR-7 antibody

Flow cytometric analysis of HT-29 (human colorectal adenocarcinoma epithelial cell, Left) / LNCap (human prostate carcinoma epithelial cell, Right) cells labelling GPCR RDC1/CXCR-7 with ab324431 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat anti-Rabbit IgG (Alexa Fluor® 647, ab150083) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells.
Negative control: HT-29 (PMID: 20388803).

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