

# CKR-6 Polyclonal Antibody

Catalog # AP73897

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P51684</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	42494

## Additional Information

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<b>Gene ID</b>	1235
<b>Other Names</b>	CCR6; CKRL3; CMKBR6; GPR29; STRL22; C-C chemokine receptor type 6; C-C CKR-6; CC-CKR-6; CCR-6; Chemokine receptor-like 3; CKR-L3; DRY6; G-protein coupled receptor 29; GPR-CY4; GPRCY4; LARC receptor; CD196
<b>Dilution</b>	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. E~~N/A
<b>Format</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
<b>Storage Conditions</b>	-20°C

## Protein Information

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<b>Name</b>	CCR6
<b>Synonyms</b>	CKRL3, CMKBR6, GPR29, STRL22
<b>Function</b>	Receptor for the C-C type chemokine CCL20 (PubMed: <a href="#">9169459</a> ). Binds to CCL20 and subsequently transduces a signal by increasing the intracellular calcium ion levels (PubMed: <a href="#">20068036</a> ). Although CCL20 is its major ligand it can also act as a receptor for non-chemokine ligands such as beta-defensins (PubMed: <a href="#">25585877</a> ). Binds to defensin DEFB1 leading to increase in intracellular calcium ions and cAMP levels. Its binding to DEFB1 is essential for the function of DEFB1 in regulating sperm motility and bactericidal activity (PubMed: <a href="#">25122636</a> ). Binds to defensins DEFB4 and DEFB4A/B and mediates their chemotactic effects (PubMed: <a href="#">20068036</a> ). The ligand-receptor pair CCL20-CCR6 is responsible for the chemotaxis of dendritic cells (DC), effector/ memory T-cells and B-cells and plays an important role at skin and mucosal surfaces under homeostatic and inflammatory conditions, as well as in pathology, including cancer and various autoimmune diseases. CCR6-mediated signals are essential for immune responses to microbes in the

intestinal mucosa and in the modulation of inflammatory responses initiated by tissue insult and trauma (PubMed:[21376174](#)). CCR6 is essential for the recruitment of both the pro-inflammatory IL17 producing helper T-cells (Th17) and the regulatory T-cells (Treg) to sites of inflammation. Required for the normal migration of Th17 cells in Payers-patches and other related tissue sites of the intestine and plays a role in regulating effector T-cell balance and distribution in inflamed intestine. Plays an important role in the coordination of early thymocyte precursor migration events important for normal subsequent thymocyte precursor development, but is not required for the formation of normal thymic natural regulatory T-cells (nTregs). Required for optimal differentiation of DN2 and DN3 thymocyte precursors. Essential for B-cell localization in the subepithelial dome of Payers-patches and for efficient B-cell isotype switching to IgA in the Payers-patches. Essential for appropriate anatomical distribution of memory B-cells in the spleen and for the secondary recall response of memory B-cells (By similarity). Positively regulates sperm motility and chemotaxis via its binding to CCL20 (PubMed:[23765988](#)).

#### Cellular Location

Cell membrane; Multi-pass membrane protein. Cell surface

#### Tissue Location

Sperm. Mainly localized in the tail and in the postacrosomal region but is also found in the midpiece and basal region in a small percentage of sperm cells. Reduced levels found in the sperms of asthenozoospermia and leukocytospermia patients (at protein level). Spleen, lymph nodes, appendix, and fetal liver. Expressed in lymphocytes, T-cells and B-cells but not in natural killer cells, monocytes or granulocytes.

## Background

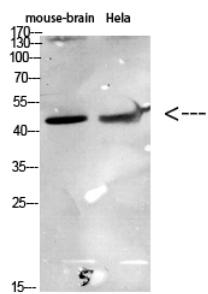
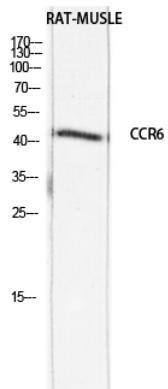
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Receptor for the C-C type chemokine CCL20 (PubMed: [9169459](#)). Binds to CCL20 and subsequently transduces a signal by increasing the intracellular calcium ion levels (PubMed: [20068036](#)). Although CCL20 is its major ligand it can also act as a receptor for non-chemokine ligands such as beta-defensins (PubMed: [25585877](#)). Binds to defensin DEFB1 leading to increase in intracellular calcium ions and cAMP levels. Its binding to DEFB1 is essential for the function of DEFB1 in regulating sperm motility and bactericidal activity (PubMed: [25122636](#)). Binds to defensins DEFB4 and DEFB4A/B and mediates their chemotactic effects (PubMed: [20068036](#)). The ligand-receptor pair CCL20-CCR6 is responsible for the chemotaxis of dendritic cells (DC), effector/ memory T-cells and B-cells and plays an important role at skin and mucosal surfaces under homeostatic and inflammatory conditions, as well as in pathology, including cancer and various autoimmune diseases. CCR6-mediated signals are essential for immune responses to microbes in the intestinal mucosa and in the modulation of inflammatory responses initiated by tissue insult and trauma (PubMed: [21376174](#)). CCR6 is essential for the recruitment of both the proinflammatory IL17 producing helper T-cells (Th17) and the regulatory T-cells (Treg) to sites of inflammation. Required for the normal migration of Th17 cells in Payers-patches and other related tissue sites of the intestine and plays a role in regulating effector T-cell balance and distribution in inflamed intestine. Plays an important role in the coordination of early thymocyte precursor migration events important for normal subsequent thymocyte precursor development, but is not required for the formation of normal thymic natural regulatory T-cells (nTregs). Required for optimal differentiation of DN2 and DN3 thymocyte precursors. Essential for B-cell localization in the subepithelial dome of Payers-patches and for efficient B-cell isotype switching to IgA in the Payers-patches. Essential for appropriate anatomical distribution of memory B-cells in the spleen and for the secondary recall response of memory B-cells (By similarity). Positively regulates sperm motility and chemotaxis via its binding to CCL20 (PubMed: [23765988](#)).

## Images

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Western blot analysis of RAT-MUSLE lysis using CCR6 antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000



Western Blot analysis of various cells using Antibody diluted at 1:1000. Secondary antibody was diluted at 1:20000

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