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Anti-CCR6 Antibody

Catalog # AP95727

Product Information

Application	WB, FC
Primary Accession	P51684
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	42494

Additional Information

Gene ID	1235
Other Names	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
Target/Specificity	Recombinant fusion protein of human CCR6 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200)
Format	Mouse IgG2a. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	CCR6
Synonyms	CKRL3, CMKBR6, GPR29, STRL22
Function	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 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 Peyers-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 Peyers-patches and for efficient B-cell isotype switching to IgA in the Peyers-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).

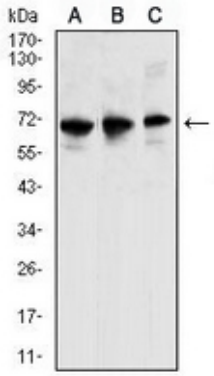
Cellular Location

Cell membrane; Multi-pass membrane protein. Cell surface

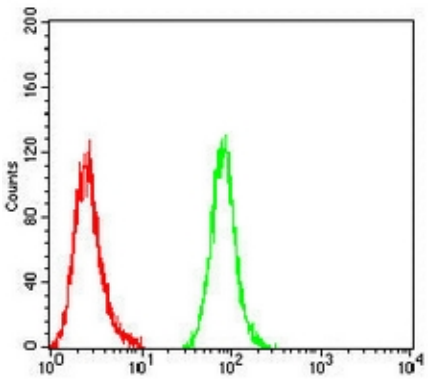
Tissue Location

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.

Images



Western blot analysis of CCR6 expression in K562 (A), THP1 (B), HL60 (C) whole cell lysates. (Predicted band size: 43 kD; Observed band size: 70 kD)



Flow cytometric analysis of THP1 cells using Anti-CCR6 Antibody (green) and negative control (red).