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Anti-CCR6 Reference Antibody (MSM patent anti-CCR6)

Catalog # APR11330

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	P51684
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1-REM
Calculated MW	42494

Additional Information

Target/Specificity	CCR6
Expression system	CHO

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).

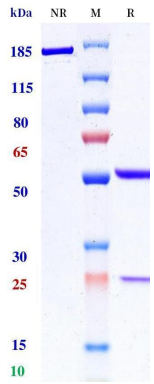
Cellular Location

Cell membrane; Multi-pass membrane protein. Cell surface

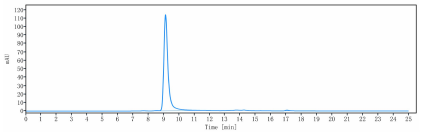
Tissue Location

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.

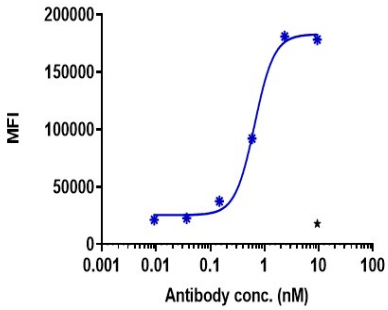
Images



Anti-CCR6 Reference Antibody (MSM patent anti-CCR6) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-CCR6 Reference Antibody (MSM patent anti-CCR6) is 98.74%, determined by SEC-HPLC.



HuCCR6-FL-His-EGFP-HEK293-A4 cell line were stained with MSM patent anti-CCR6 and negative control protein respectively, washed and then followed by PE and analyzed with FACS, with the EC50 is 0.654 nM.

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