CCR6 Protein, Human (Cell-Free, His, SUMO)

Cat. No.:	HY-P702235
Synonyms:	C-C chemokine receptor type 6; Chemokine receptor-like 3; CKR-L3; DRY6; G-protein coupled receptor 29; GPR-CY4; GPRCY4; LARC receptor
Species:	Human
Source:	E. coli Cell-free
Accession:	P51684 (M1-M374)
Gene ID:	1235
Molecular Weight:	58.5 kDa

PROPERTIES

AA Sequence	M S G E S M N F S D V F D S S E D Y F V S V N T S Y Y S V D S E M L L C S L Q E V R Q F S R L F V P I A Y S L I C V F G L L G N I L V V I T F A F Y K K A R S M T D V Y L L N M A I A D I L F V L T L P F W A V S H A T G A W V F S N A T C K L L K G I Y A I N F N C G M L L L T C I S M D R Y I A I V Q A T K S F R L R S R T L P R S K I I C L V V W G L S V I I S S S T F V F N Q K Y N T Q G S D V C E P K Y Q T V S E P I R W K L L M L G L E L L F G F F I P L M F M I F C Y T F I V K T L V Q A Q N S K R H K A I R V I I A V V L V F L A C Q I P H N M V L L V T A A N L G K M N R S C Q S E K L I G Y T K T V T E V L A F L H C C L N P V L Y A F I G Q K F R N Y F L K I L K D L W C V R R K Y K S S G F S C A G R Y S E N I S R Q T S E T A D N D N A S S F T M
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The CCR6 Protein acts as a receptor for the C-C type chemokine CCL20, transducing signals by increasing intracellular

calcium ion levels upon binding to its major ligand. Notably, CCR6 can also function as a receptor for non-chemokine ligands, such as beta-defensins, including DEFB1, DEFB4, and DEFB4A/B. The interaction between CCR6 and DEFB1 is crucial for regulating sperm motility and bactericidal activity. Additionally, CCR6 plays a pivotal role in chemotaxis, being responsible for the migration of dendritic cells, effector/memory T-cells, and B-cells, particularly at skin and mucosal surfaces under various conditions, including inflammation and pathology such as cancer and autoimmune diseases. CCR6-mediated signals are essential for immune responses in the intestinal mucosa, modulating inflammatory responses to tissue insult and trauma. Moreover, CCR6 is indispensable for recruiting pro-inflammatory IL17-producing helper T-cells (Th17) and regulatory T-cells (Treg) to sites of inflammation, influencing thymocyte precursor migration events, B-cell localization in Peyers-patches, and the efficient secondary recall response of memory B-cells. It also positively regulates sperm motility and chemotaxis through its binding to CCL20.

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