



### CCR5-C-C chemokine receptor type 5

#### Product specification

**Acronym:** hCXCR4

**Class:** Receptor

**Origin:** Human

**Molecular weight:** 40 kDa

**Application:** Screening & display technologies

**Purity:** >50%

**Activity:** To be tested

**Length:** Full Length

**TMD:** 7

**Biological function:** Trafficking of immune cells

#### Product description

CCR5 is a receptor for a number of inflammatory CC-chemokines including MIP-1-alpha, MIP-1-beta and RANTES and subsequently transduces a signal by increasing the intracellular calcium ion level. May play a role in the control of granulocytic lineage proliferation or differentiation. Acts as a coreceptor (CD4 being the primary receptor) for HIV-1 R5 isolates. CCR5 is G protein-coupled receptor (GPCR) which regulates trafficking and effector functions of memory/effector T-lymphocytes, macrophages, and immature dendritic cells. It also serves as the main coreceptor for the entry of R5 strains of human immunodeficiency virus (HIV-1, HIV-2).

**Protein Source:** hCCR5 wild type protein (Human CCR5)

*Fig.1: AA sequence of hCCR5 protein*

10	20	30	40	50	
MDYQVSSPIY	DINYYTSEPC	QKINVVKQIAA	FLLPPLYSLV	FIFGFVGNML	
60	70	80	90	100	
VTI	TITNCKR	IKSMTDTVII	NIATSDIFFI	ITVPFUAHYA	AAQWDFGNTM
110	120	130	140	150	
CQLLTGLYFI	6FFSGIFFII	LLTIDRYLAV	VHAVFALKAR	TVTFGVVTSV	
160	170	180	190	200	
ITWWVAVFAS	LPGIIFTRSQ	KEGLHYTCSS	HFPYSOYQFW	KNFOTLKIVI	
210	220	230	240	250	
LGLVLPLLVM	VICYSGILKT	LLRCRNEKKR	HRAVRLIFTI	MIVYFLFWAP	
260	270	280	290	300	
YNIVLILLNTF	QEFFFGLNNCS	SSNRLDQAMQ	VTETLGMTHC	CINPIIYAFV	
310	320	330	340	350	
GEKFRNYLLV	FFQKHIMKRF	CKCCSIFQQE	APERASSVYT	RSTGEQEISV	

**Affinity Tag:** Histidine tag fused to the N-terminal end of the protein.

**Production conditions:** Hccr5 is expressed in a cell-free expression system in the presence of lipid vesicles. 100 µg can be produced and qualified in about 1 week.

## Quality analysis

**Purity:** Typically > 50% as determined by SDS-Page and Coomassie Blue staining.

**Purification procedure:** As standard, hCCR5 proteoliposomes are purified on a sucrose gradient. Further purification steps can be added if required.

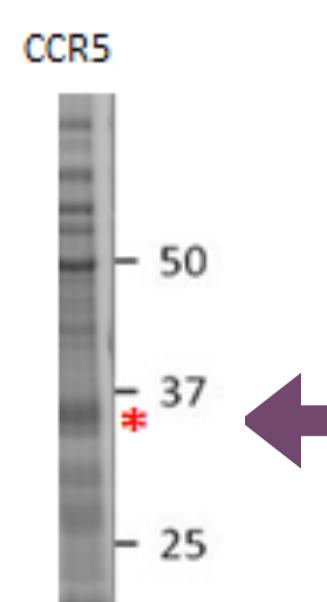


Fig.2: Proteoliposome hCCR5 after purification (Western blot identification).

After purification on a sucrose gradient, the protein appears at the right size (red asterisk) on polyacrylamide gel. The dimer form is also present after purification.

## Formulation

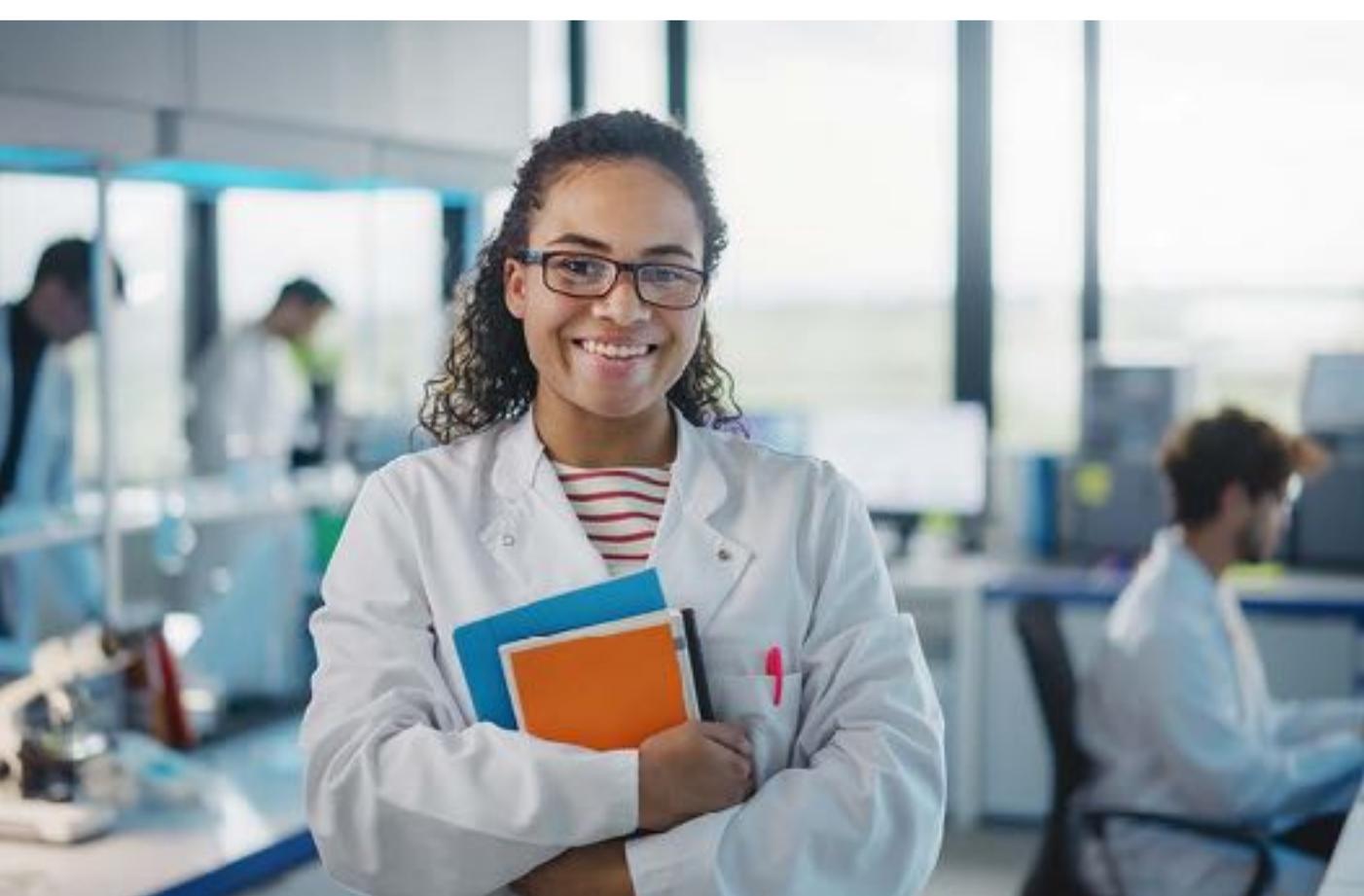
**Buffer:** Available in Tris 50mM, pH 7.5. Other buffers or customized formulation can be provided upon request.

**Customized Hydrophobic matrix:** Customized formulation with specific lipids like PEGylated or biotinylated lipids can be used upon request, as well as targeting molecules.

**Storage/Stability:** Store at +4°C for up to one week or several months at -80°C. Aliquot for storage. Do not freeze-thaw after aliquoting.

**Use restrictions:** For life science research use only.

**Available sizes:** 10µg, 20µg, 100 µg, 200 µg, 500 µg,bulk



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