

## CCR1 – C-C Chemokine Receptor type 1

### Product specification

**Acronym:** CCR1

**Class:** GPCR class A

**Origin:** Human

**Molecular weight:** 41 kDa

**Application:** Screening & display technologies, Antibody development, Structural Biolog

**Purity:** >50%

**Activity:** To be tested

**Length:** Full Length

**TMD:** 7

**Biological function:** Stem cell proliferation

### Product description

The ligands of this receptor include macrophage inflammatory protein 1 alpha (MIP-1 alpha), regulated on activation normal T expressed and secreted protein (RANTES), monocyte chemoattractant protein 3 (MCP-3), and myeloid progenitor inhibitory factor-1 (MPIF-1). These chemokines and their receptor mediated signal transduction are critical for the recruitment of effector immune cells to the site of inflammation. CCR1-C-C Chemokine Receptor type 1-is one of the most prevalent targets for drug development according to the distribution of patents for small molecule inhibitors of chemokine receptors.

**Protein Source:** hCCR1 wild type protein (Human CCR1)

*Fig.1: AA sequence of hCCR1 protein*

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10      20      30      40      50
MEIPNITEDY DITTEFDYGD AIPCQRVNER AFGAQLLPPL YSLV-VIGLV
60      70      80      90     100
GNILWLVLV QVRLKNMYS IYLLNLAISD LLFLFTLPFW IDYKLRDQWV
110     120     130     140     150
FGDAMCKILS GFYYTGLYSE IFFIILLTID RYLAIVIAVY ALRARTVTFG
160     170     180     190     200
VITSIIWAL AILASMPGLY FSKTQWEPTH HTCSLHFPHE SLREMKLFQA
210     220     230     240     250
LRNLPLGLVL PLLVMIIQYI GIIRKILRRP NEKKSRAVRL IFVIMLIFFL
260     270     280     290     300
FWTPYNLTIL ISVFQDFLFT HECEQSRHLD LAVQVTEVIA YTHCCVNPVI
310     320     330     340     350
YAFVGERFRK YLRQLTIRRV AMILVKNLPT LSVDRLERVS STSPSTGHE
LSAGF

```

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

**Production conditions:** hCCR1 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.

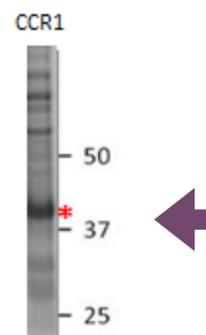
## Quality analysis

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

**Purification procedure:** As standard, hCCR1 proteoliposomes are purified on a sucrose gradient. Further purification steps can be added if required.

*Fig.2: Western blot identification of hCCR1 proteoliposome after purification on sucrose gradient.*



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

## Formulation

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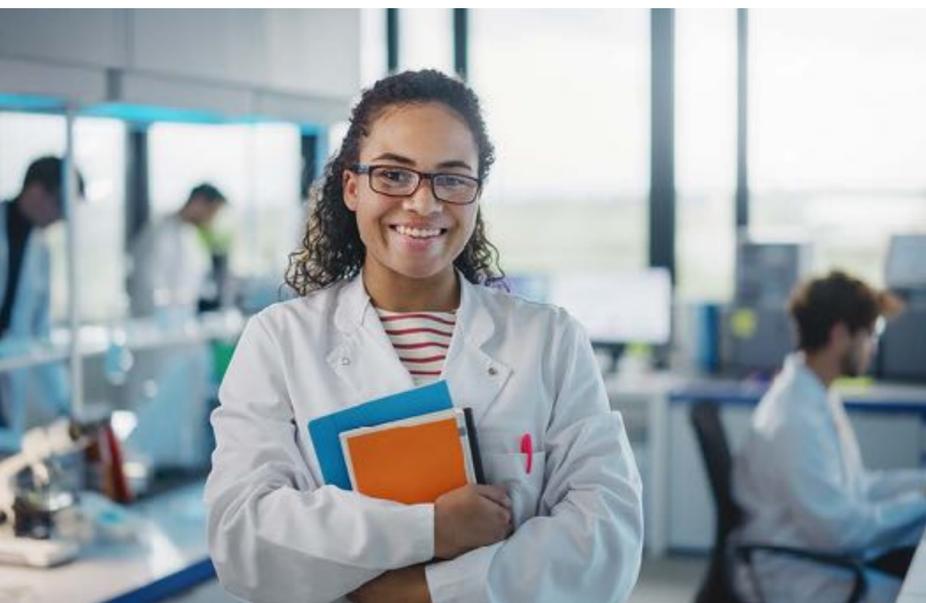
**Buffer:** Available in Tris 50mM, pH 7.5. Other buffers or customized formulation can be provided upon request.

**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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