

Product Sheet



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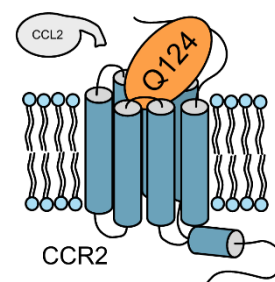
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C-C chemokine receptor type 2 (CCR2)

Catalogue no.: Q124c
Clone name: 2G5

Product: VHH directed against CCR2
Target: The C-C chemokine receptor type 2 (CCR2 or CD192, UniProt P41597) is a 7-transmembrane spanning class A (rhodopsin-like) G protein-coupled receptor (GPCR). CCR2 has at least four human chemokine ligands, of which CCL2 is the most potent ¹. CCR2 is predominantly expressed on monocytes and regulates (patho-)physiological inflammatory processes ². Upregulated CCR2/CCL2 signaling is associated with cancer progression and metastasis, as well as inflammatory diseases ^{3,4}.



Source: Recombinant monoclonal VHH (Llama glama), purified from *S. cerevisiae* using affinity chromatography. Immunization with CCR2b-expressing lipoparticles. Phage-display selection on lipoparticles with total elution.

Specificity: Q124 binds to the extracellular part of human CCR2b and competes with clinically tested conventional antibody Plozalizumab.

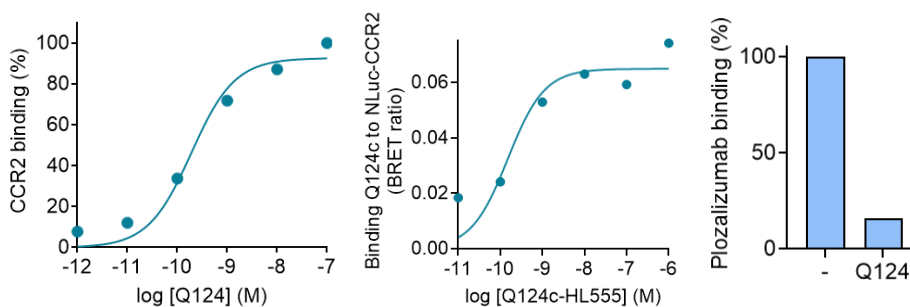
Formulation: 0.2 µm filtered solution in PBS. The product is equipped with a C-terminal C-Direct tag with an unpaired cysteine for directional conjugation.

Mol. Weight: 15509 kDa
Ext. Coeff. (ε): 24535 M⁻¹ cm⁻¹
A₂₈₀ at 1g/L: 1.6

Storage: Shipped on blue ice. Store at -20 °C (aliquots). Addition of 0.02% sodium azide is optional.

Applications: ELISA, flow cytometry, most likely antagonism (not tested)

Examples:



Binding of Q124 (2G5) to CCR2b in HEK293-derived lipoparticles (left). Binding of Q124c-HL555 to N-terminally luciferase-tagged CCR2b (middle). Displacement of clinically tested CCR2 antibody Plozalizumab by Q124 in ELISA (right).

References:

- 1 Shao et al. (2022) Cell Discov. 8:44.
- 2 Yamasaki et al (2011) Clin. Exp. Neuroimmunol. 3, 16-29.
- 3 Fei et al (2021) Front Immunol. 12, 771210.
- 4 Pozzi et al (2019) Adv. Drug Deliv. Rev. 209, 115318.