

PRODUCT DATA SHEET

ANTI-HUMAN CCR4 MONOCLONAL ANTIBODY

PRODUCT INFORMATION

Catalog Number:	GM-0602	Clone:	KH-4F5
Description:	purified monoclonal mouse antibody	Specificity:	anti-human CCR4
Isotype:	IgG2a/kappa	Purification:	Protein G
Storage:	short term: 2°C – 8°C; long term: –20°C (avoid repeated freezing and thawing)	Buffer:	phosphate buffered saline, pH 7.2
Immunogen:	immunization with human CCR4 peptide	Selection:	based on recognition of the complete native protein expressed on transfected mammalian cells

WORKING DILUTIONS

Flow cytometry:	1.2 µg/10 ⁶ cells	CELISA:	1:200 – 1:400
Immunofluorescence:	1 µg/10 ⁶ cells	For each application a titration should be performed to determine the optimal concentration.	

SPECIFICITY TESTING BY FLOW CYTOMETRY AND BY SPECTRAL CONFOCAL MICROSCOPY

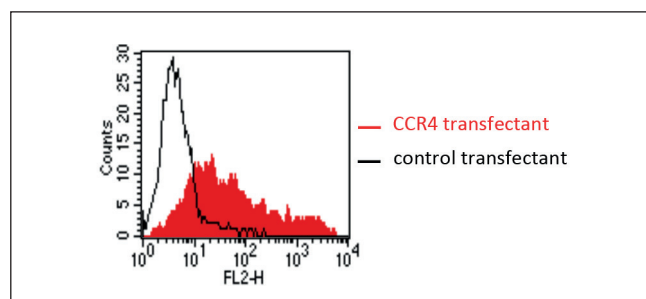


Fig. 1: FACS analysis of BOSC23 cells using KH-4F5 Cat.# GM-0602. BOSC23 cells were transiently transfected with an expression vector encoding either CCR4 (red curve) or an irrelevant protein (control transfectant). Binding of KH-4F5 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with CCR4 transfected cells.

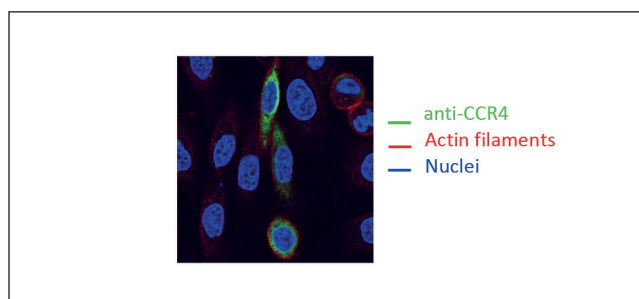


Fig. 2: Spectral Confocal Microscopy of CHO cells using KH-4F5 Cat.# GM-0602. CHO cells were transiently transfected with an expression vector encoding CCR4. Binding of KH-4F5 was visualized with a FITC-conjugated secondary antibody (green). Actin filaments are labeled with Alexa Fluor-555 Phalloidin (red). Cell nuclei are stained with DAPI (blue).

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SDS-PAGE ANALYSIS OF KH-4F5

The antibody was purified by protein G affinity chromatography from cell culture supernatants and verified by SDS-Page (Fig. 3).

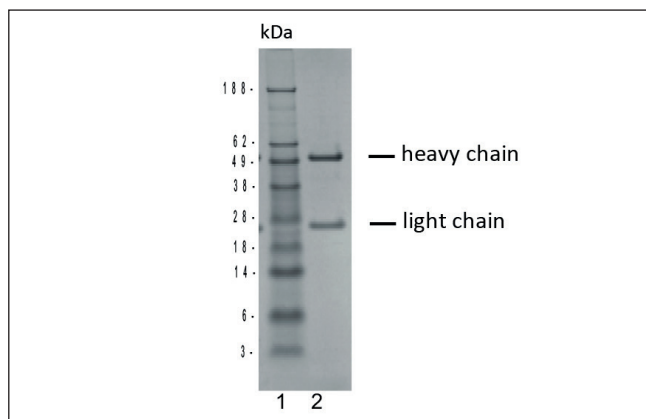


Fig.3: SDS-PAGE analysis of purified KH-4F5 monoclonal antibody. Lane 1: molecular weight marker, Lane 2: 2 µg of purified KH-4F5 antibody. Proteins were separated by SDS-PAGE and stained with RAPID Stain™ Reagent.

BACKGROUND

CCR4 (CC chemokine receptor 4) belongs to the rhodopsin family of G-protein-coupled receptors. Chemokine receptors are membrane-bound molecules composed of 7-transmembrane domains and are coupled to G-proteins (1, 2). CCR4 binds the chemokines CCL17 (TARC) and CCL22 (MDC) and is highly expressed in most single-positive CD4(+) thymocytes especially in TH2- and regulatory T-cells (3, 4). It plays a central role in T cell migration to the thymus, T cell maturation and education. CCR4 is often up-regulated in inflammation and cause conformational changes that trigger intracellular signaling pathways (2, 5).

REFERENCES

1. **Andrew DP et al. (2001).** C-C chemokine receptor 4 expression defines a major subset of circulating non-intestinal memory T cells of both Th1 and Th2 potential. *J Immunol* 166(1): 103-11
2. **Murdoch C and Finn A (2000).** Chemokine receptors and their role in inflammation and infectious diseases. *Blood* 95 (10): 3032-3043
3. **Imai T et al. (1997).** The T cell-directed CC chemokine TARC is a highly specific biological ligand for CC chemokine receptor 4. *J Biol Chem* 6;272(23):15036-42
4. **Imai T et al. (1998).** Macrophage-derived chemokine is a functional ligand for the CC chemokine receptor 4. *J Biol Chem* 16;273(3):1764-8
5. **Purandare AV and Somerville JE (2006).** Antagonists of CCR4 as immunomodulatory agents. *Curr Top Med Chem* 6(13):1335-44

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