Mouse CCR7 Antibody

Monoclonal Rat IgG_{2A} Clone # 4B12

Catalog Number: MAB3477

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CCR7.
Source	Monoclonal Rat IgG_{2A} Clone # 4B12
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	RBC-2H3 cells expressing mouse CCR7 Accession # NP_031745
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

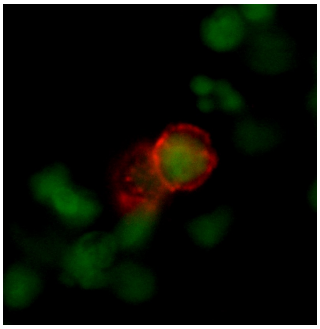
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10^6 cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-reported	Spitzer, M. *et al.* (2015) Science **349**: 1259425. Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize CCL19/MIP-3β-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with mouse CCR7. The Neutralization Dose (ND_{50}) is typically 2-10 µg/mL in the presence of 25 ng/mL Recombinant Mouse CCL19/MIP-3β.	

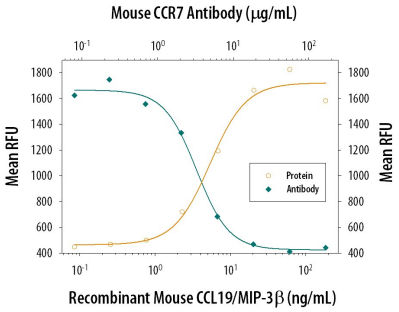
DATA

Immunocytochemistry



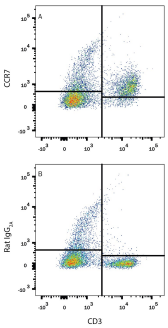
CCR7 in Mouse Splenocytes. CCR7 was detected in immersion fixed non-stimulated mouse splenocytes using 25 µg/mL Rat Anti-Mouse CCR7 Monoclonal Antibody (Catalog # MAB3477) for 3 hours at room temperature. Cells were stained (red) and counterstained (green). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

Neutralization



Chemotaxis Induced by CCL19/MIP-3β and Neutralization by Mouse CCR7 Antibody. Recombinant Mouse CCL19/MIP-3β (Catalog # 440-M3) chemoattracts the BaF3 mouse pro-B cell line transfected with mouse CCR7 in a dose-dependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Mouse CCL19/MIP-3β (25 ng/mL) is neutralized (green line) by increasing concentrations of Rat Anti-Mouse CCR7 Monoclonal Antibody (Catalog # MAB3477). The ND_{50} is typically 2-10 µg/mL.

Flow Cytometry



Detection of CCR7 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse CD3 PE-conjugated Monoclonal Antibody (Catalog # FAB4841P) and either (A) Rat Anti-Mouse CCR7 Monoclonal Antibody (Catalog # MAB3477) or (B) Rat IgG_{2A} Isotype Control (Catalog # MAB006) followed by Allophycocyanin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0113). View our protocol for Staining Membrane-associated Proteins.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Mouse CCR7 Antibody

Monoclonal Rat IgG_{2A} Clone # 4B12

Catalog Number: MAB3477

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CCR7 (Chemokine Receptor 7; also CD197) is a 7 transmembrane (7TM) G protein-coupled chemokine receptor for the homeostatic chemokines CCL19/MIP-3 beta and CCL21/6Ckine. CCL19 and CCL21 are constitutively expressed by high endothelial venule epithelial cells or fibroblastic reticular cells in secondary lymphoid organs. CCR7 is upregulated on dendritic cells, naïve and memory T cells, Treg, NK cells, and B cells following inflammatory stimulation. Its expression enables the function of immune cell trafficking to and retention in regional lymph nodes for expansion of the adaptive immune response. Mouse CCR7 shares 87% amino acid sequence identity with human CCR7.

Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449