

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CCL21/6Ckine in direct ELISAs and Western blots. Does not cross-react with recombinant human (rh) 6Ckine, rhMIP-1 α , rhMIP-1 β , recombinant mouse (rm) MIP-1 α , rmMIP-1 β , rhMIP-1 δ , rmMIP-1 γ , rmMIP-2, rhMIP-3 α , rmMIP-3 α , rhMIP-3 β , rmMIP-3 β , rhTeck, or rmTeck.
Source	Monoclonal Rat IgG _{2B} Clone # 59106
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse CCL21/6Ckine Ser24-Gly133 Accession # P84444
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

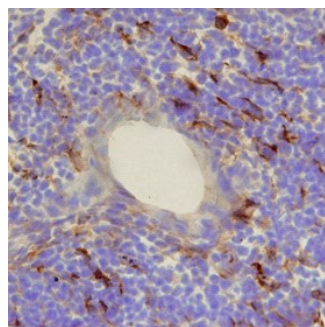
APPLICATIONS

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
Western Blot	1 μ g/mL	Recombinant Mouse CCL21/6Ckine (Catalog # 457-6C)
Immunohistochemistry	25 μ g/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 μ g/10 ⁶ cells	See Below
Mouse CCL21/6Ckine Sandwich Immunoassay		Reagent
ELISA Capture	2-8 μ g/mL	Mouse CCL21/6Ckine Antibody (Catalog # MAB457)
ELISA Detection	0.1-0.4 μ g/mL	Mouse CCL21/6Ckine Biotinylated Antibody (Catalog # BAF457)
Standard		Recombinant Mouse CCL21/6Ckine (Catalog # 457-6C)
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

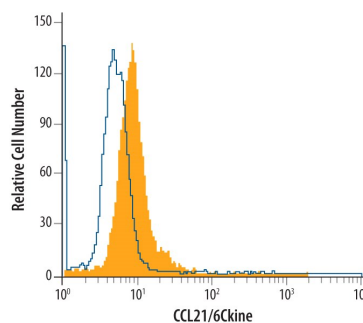
DATA

Immunohistochemistry



CCL21/6Ckine in Mouse Thymus.
CCL21/6Ckine was detected in perfusion fixed frozen sections of mouse thymus using Mouse CCL21/6Ckine Monoclonal Antibody (Catalog # MAB457) at 25 μ g/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific staining was localized to endothelial cells. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

Intracellular Staining by Flow Cytometry



Detection of CCL21/6Ckine in D3 Mouse Cell Line by Flow Cytometry.
D3 mouse embryonic stem cell line was stained with Rat Anti-Mouse CCL21/6Ckine Monoclonal Antibody (Catalog # MAB457, filled histogram) or isotype control antibody (Catalog # MAB0061, open histogram), followed by Phycoerythrin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0105B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

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. <ul style="list-style-type: none"> ● 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

6Ckine is a novel CC chemokine discovered independently by three groups from the EST database. 6Ckine, also named SLC (secondary lymphoid-tissue chemokine), CCL21 and Exodus-2, shows 21-33% identity to other CC chemokines. 6Ckine contains the four conserved cysteines characteristic of β chemokines plus two additional cysteines in its unusually long carboxyl-terminal domain. Human 6Ckine cDNA encodes a 134 amino acid, highly basic, precursor protein with a 23 aa signal peptide that is cleaved to form the predicted 111 amino acid residue mature protein. Mouse 6Ckine cDNA encodes a 133 amino acid protein with a 23 signal peptide that is cleaved to generate the 110 aa mature protein. Human and mouse 6Ckine are highly conserved, exhibiting 86% aa sequence identity. 6Ckine is constitutively expressed at high levels in lymphoid tissues such as lymph nodes, spleen and appendix. In mouse, high levels of 6Ckine mRNA are also detected in the lung. The gene for human 6Ckine has been localized at human chromosome 9p13 rather than chromosome 17 where the genes of many human CC chemokines are clustered. The 6Ckine gene location is within a region of about 100 kb from the MIP-3 β /ELC gene, another identified novel CC chemokine. Unlike most CC chemokines, 6Ckine is not chemotactic for monocytes. Recombinant mouse 6Ckine is chemotactic *in vitro* for thymocytes and activated T cells. Recombinant human 6Ckine has been shown to be chemotactic for some human T cell lines, resting PBL, and cultured T cells expanded with PHA and IL-2. 6Ckine has also been reported to inhibit hemopoietic progenitor colony formation in a dose-dependent manner. 6Ckine acts via a class of as yet unidentified CC receptors on both T cells and B cells that are not shared by any other CC chemokines.

References:

1. Hedrick, J.A. and A. Zlotnik (1997) J. Immunol. **159**:1589.
2. Hromas, R. *et al.* (1997) J. Immunol. **159**:2554.
3. Nagira, M. *et al.* (1997) J. Biol. Chem. **272**:19518.