

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CCL22/MDC in direct ELISAs and Western blots. In direct ELISAs, does not cross-react with recombinant cotton rat CCL3, 4, 5, recombinant human CCL1, 2, 3, 4, 5, 7, 8, 9/10/MIP-1γ, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, recombinant mouse CCL1, 2, 3, 4, 5, 6, 7, 8, 9/10/MIP-1γ, 11, 12, 17, 19, 21, 22, 24, 25, 27, 28, or recombinant rat CCL20.
Source	Monoclonal Mouse IgG _{2B} Clone # 57203
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human CCL22/MDC Gly25-Gln93 Accession # O00626.1
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human mature dendritic cells fixed with paraformaldehyde and permeabilized with saponin

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CCL22, also known as Stimulated T cell Chemotactic Protein (STCP-1), is a CC chemokine initially isolated from clones of monocyte-derived macrophages. Human CCL22 cDNA encodes a precursor protein of 93 amino acid residues with a 24 amino acid residue predicted signal peptide that is cleaved to yield a 69 amino acid residue mature 8 kDa protein. At the amino acid sequence level, CCL22 shows less than 35% identity to other CC chemokine family members. Human CCL22 is expressed in dendritic cells, macrophages and activated monocytes. In addition, CCL22 expression is also detected in the tissues of thymus, lymph node and appendix. The gene for human CCL22 has been mapped to chromosome 16 rather than chromosome 17 where the genes for many human CC chemokines are clustered. Recombinant or chemically synthesized mature CCL22 has been shown to induce chemotaxis or Ca²⁺ mobilization in dendritic cells, IL-2 activated NK cells, and activated T lymphocytes. A CD8⁺ T lymphocyte-derived secreted soluble activity that suppresses infection by primary non-syncytium-inducing and syncytium-inducing HIV-1 isolates and the T-cell line-adapted isolate HIV-1_{IIIIB}, has been identified as CCL22. Based on amino-terminal sequence analysis, the major CD8⁺ T lymphocyte-derived CCL22 protein yielded an amino-terminal sequence of YGANM, which is two amino acid residues shorter than the predicted mature CCL22. The difference in potency between the two mature CCL22 isoforms has not been determined.

References:

- Godiska, R. *et al.* (1997) J. Exp. Med. **185**:1595.
- Chang, M-S. *et al.* (1997) J. Biol. Chem. **272**:25229.
- Pal, R. *et al.* (1997) Science **278**:5338.

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