



Anti-Human MDC

20150223ML



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	102-P61
Size:	100 µg
Lot. No.:	According to product label

Preparation: Produced from sera of rabbits pre-immunized with highly pure (>98%) recombinant human MDC (human Macrophage-Derived Chemokine). Anti-human MDC specific antibody was purified by affinity chromatography employing immobilized human MDC matrix.

Target Background

Synonyms (Target):	CCL22; MDC; ABCD-1; SCYA22; STCP-1; DC/B-CK; A-152E5.1
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MDC or CCL22, also named stimulated T cell chemotactic protein (STCP-1), is a CC chemokine initially isolated from clones of monocyte-derived macrophages. Human MDC 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, MDC shows less than 35% identity to other CC chemokine family members. Human MDC is expressed in dendritic cells, macrophages and activated monocytes. In addition, MDC expression is also detected in the tissues of thymus, lymph node and appendix. The gene for human MDC 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 MDC has been shown to induce chemotaxis or Ca²⁺ mobilization in dendritic cells, IL2 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 HIV1 isolates and the T cell line-adapted isolate HIV1 IIIB, has been identified as MDC. Based on aminoterminal sequence analysis, the major CD8⁺ T lymphocyte-derived MDC protein yielded an aminoterminal sequence of YGANM, which is two amino acid residues shorter than the predicted mature MDC. The difference in potency between the two mature MDC isoforms has not been determined.

Database References Target

Protein RefSeq:	NP_002381
Uniprot ID:	O75078
mRNA RefSeq:	NM_002390

Product Specifications

Species reactivity	Human
Clone/Ab feature	Rabbit IgG
Cross reactivity	Human
Host	Rabbit
Clonality	Polyclonal Antibody
Purification	Antigen-affinity purified
Immunogen	Recombinant Human MDC
Formulation	lyophilized from PBS
Reconstitution buffer	water

Reconstitution: Reconstitute the antibody in sterile water to a concentration of 0.1 - 1.0 mg/ml.

Stability: The lyophilized antibody is stable for at least 2 years from date of receipt at -20°C. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Neutralization: To yield one-half maximal inhibition [ND₅₀] of the biological activity of human MDC (100 ng/ml), a concentration of 5.0 – 7.0 µg/ml of this antibody is required.

ELISA: To detect human MDC by direct ELISA (using 100µl/well antibody solution) a concentration of at least 0.5µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of 0.2 - 0.4 ng/well of recombinant human MDC.

Western Blot: To detect human MDC by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant human MDC is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!