Cytokines

Human Recombinant MIP-3 alpha (CCL20)

Macrophage inflammatory protein-3 alpha

Catalog #	78118	5 µg
	78118.1	25 µg

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Product Description

Macrophage inflammatory protein-3 alpha (MIP-3 alpha) or CCL20 is a small cytokine belonging to the CC chemokine family. It is strongly chemotactic for lymphocytes and weakly attracts neutrophils. MIP-3 alpha has been shown to be expressed predominantly in liver, lymph nodes, appendix, peripheral blood lymphocytes, and lungs, and its expression is markedly upregulated by mediators of inflammation such as tumor necrosis factor or lipopolysaccharide (Hromas et al.). MIP-3 alpha signals through the CCR6 receptor, a chemokine receptor that is selectively and highly expressed in human CD34+ cell-derived dendritic cells (Baba et al.; Greaves et al.).

Product Information

Alternative Names:	CCL20, Exodus-1, LARC, Macrophage inflammatory protein-3α
Accession Number:	P78556
Amino Acid Sequence:	ASNFDCCLGY TDRILHPKFI VGFTRQLANE GCDINAIIFH TKKKLSVCAN PKQTWVKYIV RLLSKKVKNM
Predicted Molecular Mass:	8 kDa
Species:	Human
Cross Reactivity:	Mouse, Rat
Formulation:	Lyophilized after dialysis against phosphate-buffered saline.
Source:	CHO

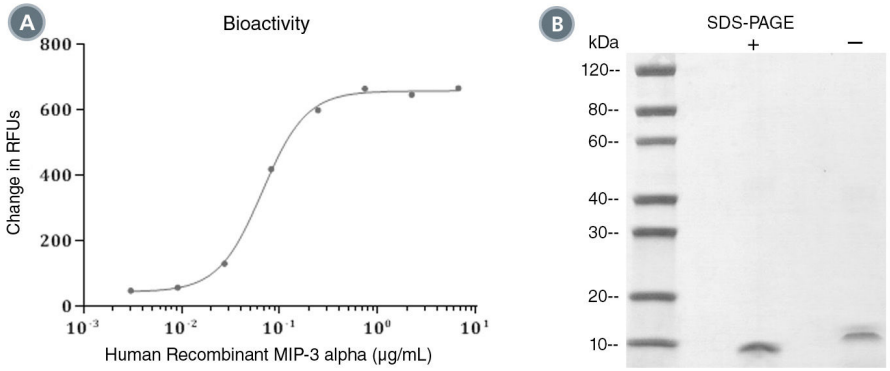
Specifications

Activity:	The specific activity is ≥ 5.0 x 10^3 units/mg (EC50 ≤ 0.2 µg/mL) as determined by Ca2+ mobilization assay in CHO-K1/Gα15/hCCR6 cells (human Gα15 and human CCR6 stably expressed in CHO-K1 cells).
Purity:	≥ 98%
Endotoxin Level:	Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

Preparation and Storage

Storage:	Store at -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 week or at -20°C for more than 2 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant MIP-3 alpha (CCL20) was tested by its ability to mobilize Ca2+ in CHO-K1/Gα15/hCCR6 cells (human Gα15 and human CCR6 stably expressed in CHO-K1 cells). Ca2+ mobilization was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which Ca2+ mobilization is at 50% of maximum. The EC50 in the above example is less than 0.2 µg/mL.
(B) 2 µg of Human Recombinant MIP-3 alpha (CCL20) was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant MIP-3 alpha (CCL20)has a predicted molecular mass of 8 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

Baba M et al. (1997) Identification of CCR6, the specific receptor for a novel lymphocyte-directed CC chemokine LARC. J Biol Chem 272(23): 14893–8.
Greaves DR et al. (1997) CCR6, a CC chemokine receptor that interacts with macrophage inflammatory protein 3alpha and is highly expressed in human dendritic cells. J Exp Med 186(6): 837–44.
Hromas R et al. (1997) Cloning and characterization of exodus, a novel beta-chemokine. Blood 89(9): 3315–22.