

Cytokines

Mouse Recombinant IL-5



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Catalog #78049.1
78049

25 µg
100 µg

Product Description

Interleukin 5 (IL-5) is a member of the short-chain 4- α -helical bundle subset of hematopoietic cytokines. It binds to the specific α receptor, which in turn recruits the common β receptor that initiates signaling via JAK/STAT and MAPK pathways. IL-5 is produced by Th2 cells, eosinophils, activated mast cells, and ILC2 cells. IL-5 affects the differentiation, activation, and survival of eosinophils, thus playing an important role in allergic inflammation, asthma, and parasite immunity. Stimulation of eosinophils with IL-5 leads to their activation, upregulation of CD11b expression, and inhibition of apoptosis (Shearer).

Product Information

Alternative Names:	B cell differentiation factor II, BCDFII, EDF, Eosinophil differentiation factor, Interleukin-5, TFR
Accession Number:	P04401
Amino Acid Sequence:	MEIPMSTVVK ETLTQLSAHR ALLTSNETMR LPVPTHKNHQ LCIGEIFQGL DILKNQTVRG GTVEMLFQNL SLIKKYIDRQ KEKCGEERRR TRQFLDYLQE FLGVMSTEWA MEG
Predicted Molecular Mass:	26.3 kDa
Species:	Mouse
Formulation:	Lyophilized from a sterile-filtered aqueous solution containing sodium bicarbonate, pH 9.
Source:	<i>E. coli</i>

Specifications

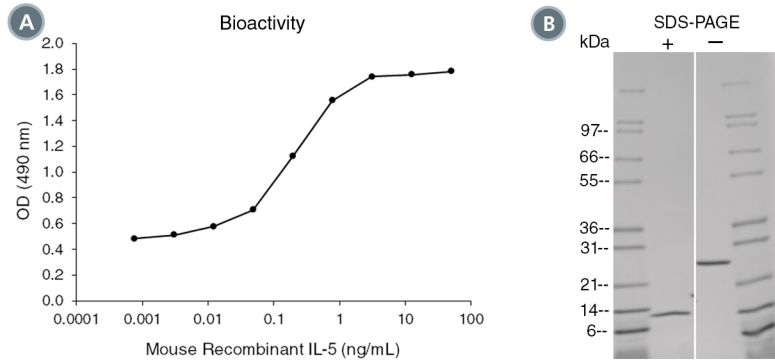
Activity:	The specific activity is $\geq 5 \times 10^5$ units/mg ($EC_{50} \leq 2$ ng/mL) as determined by a cell proliferation assay using TF-1 cells.
Purity:	$\geq 95\%$
Endotoxin Level:	Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1 EU/ μ g protein.

Preparation and Storage

Storage:	Store at -20 to -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.

OPTIONAL: After reconstitution, if product will not be used immediately, dilute with concentrated bovine serum albumin (BSA) to a final BSA concentration of 0.1%. The effect of storage of stock solution on product performance should be tested for each application. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Mouse Recombinant IL-5 was tested by its ability to promote the proliferation of TF-1 cells. Cell proliferation was measured after 70 hours of culture. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC50 in the above example is 0.15 - 0.22 ng/mL.

(B) 1 µg of Mouse Recombinant IL-5 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Mouse Recombinant IL-5 is a homodimer of 13.1 kDa subunits and has a predicted molecular mass of 26.3 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

Shearer W. (2003) Biology of common β receptor–signaling cytokines IL-3, IL-5, and GM-CSF. *J Allergy Clin Immunol* 112(4): 653–65.

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