

Cytokines

Mouse Recombinant IL-22



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Catalog # 78039.1
78039

10 µg
100 µg

Product Description

Interleukin 22 (IL-22) is a class 2 α -helical cytokine that signals through the class 2 cytokine receptor and activates the JAK/STAT pathway. IL-22 is secreted by Th1, Th2, Tc22, and γ/δ T cells, as well as by dendritic, mast, and NK cells. It stimulates expression of antimicrobial peptides from epithelial cells, thus hindering bacterial infections. Depending on the interactions with other cytokines, IL-22 can either promote inflammation or prevent tissue destruction by regulating host defense and tissue homeostasis at barrier surfaces (Sonnenberg et al.).

Product Information

Alternative Names: IL-TIF, Interleukin-22

Accession Number: Q9JJY9

Amino Acid Sequence: MLPVNTRCKL EVSNFQQPYI VNRTFMLAKE ASLADNNTDV RLIGEKLFGR VSAKDQCYLEM KQVLNFTLED VLLPQSDRFQ PYMQEVVFFL TKLSNQLSSC HISGDDQNIQ KNVRRLLKETV KKLGESGEIK AIGELDLLFM SLRNACV

Predicted Molecular Mass: 16.8 kDa

Species: Mouse

Cross Reactivity: Human

Formulation: Lyophilized from a sterile-filtered aqueous solution containing 0.1% trifluoroacetic acid.

Source: E. coli

Specifications

Activity: The specific activity is $\geq 1 \times 10^6$ units/mg ($EC_{50} \leq 1$ ng/mL) as determined by the ability to induce IL-10 secretion in COLO 205 cells.

Purity: $\geq 95\%$

Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1 EU/ μ g protein.

Preparation and Storage

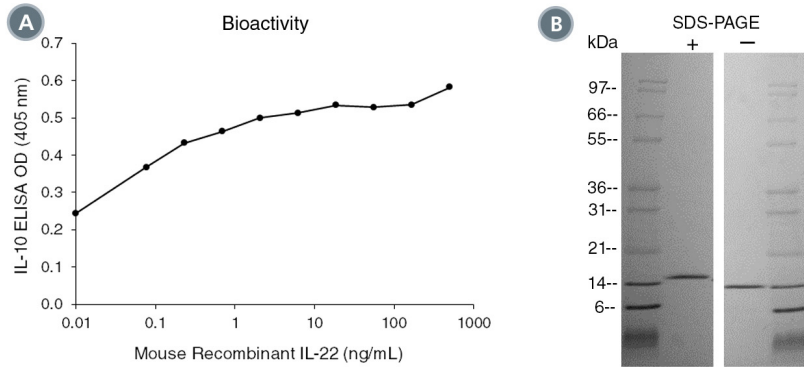
Storage: Store at -20°C to -80°C .

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 $2 - 8^{\circ}\text{C}$ 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-22 was tested by its ability to produce IL-10 in COLO 205 cells. IL-10 secretion was measured after 4 days of culture using a fluorometric assay method. The EC₅₀ is defined as the effective concentration of the growth factor at which IL-10 production is at 50% of maximum. The EDC₅₀ in the above example is 0.15 - 0.23 ng/mL.

(B) 1 µg of Mouse Recombinant L-22 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Mouse Recombinant IL-22 has a predicted molecular mass of 16.8 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

Sonnenberg GF et al. (2011) Border patrol: regulation of immunity, inflammation and tissue homeostasis at barrier surfaces by IL-22. *Nat Immunol* 12(5): 383–90.

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