

Cytokines

Human Recombinant IL-22



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Catalog # 78038.1
78038

Interleukin 22

10 µg
50 µg

Product Description

Interleukin 22 (IL-22) is a class 2 α -helical cytokine that signals via the class 2 cytokine receptor and activates the JAK/STAT pathway. IL-22 is secreted by Th1, Th2, Tc22, and $\gamma\delta$ T cells, 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: Q9GZX6
Amino Acid Sequence: MAPISSHCRL DKSNFQQPYI TNRTFMLAKE ASLADNNTDV RLIGEKLPHG VSMERCYLM KQVLNFTLEE
VLFPQSDRFQ PYMQEVVPFL ARLSNRLSTC HIEGDDLHIQ RNVQKLKDTV KKLGESGEIK AIGELDLLFM
SLRNACI
Predicted Molecular Mass: 16.9 kDa
Species: Human
Cross Reactivity: Monkey
Formulation: Lyophilized after dialysis against phosphate-buffered saline.
Source: E. coli

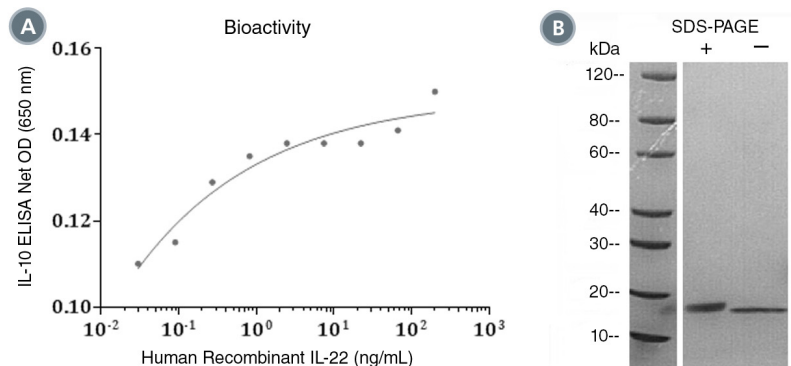
Specifications

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: $\geq 98\%$
Endotoxin Level: Measured by kinetic Limulus amoebocyte 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 or phosphate-buffered saline to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at $2 - 8^{\circ}\text{C}$ for up to 1 week or at -20°C to -80°C for up to 2 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant IL-22 was tested by its ability to produce IL-10 in COLO 205 cells. IL-10 secretion was measured 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 EC50 in the above example is less than 1 ng/mL.

(B) 2 µg of Human Recombinant IL-22 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant IL-22 has a predicted molecular mass of 16.9 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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