

# Cytokines

## Human Recombinant IL-22



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Catalog # 78038.1  
78038

10 µg  
50 µg

## Product Description

Interleukin 22 (IL-22) is a class 2  $\alpha$ -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 RLIGEKLFHG VSMERCYLM KQVLNFTLEE VLFPSQDRFQ PYMQEVVFL 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  $\leq 0.2$  EU/µg protein.

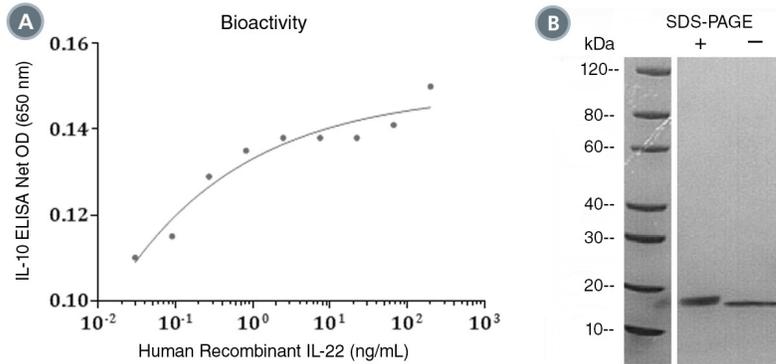
## Preparation and Storage

Storage: Store at  $-80^\circ\text{C}$ .

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  $-20^\circ\text{C}$  to  $-80^\circ\text{C}$  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 EC<sub>50</sub> is defined as the effective concentration of the growth factor at which IL-10 production is at 50% of maximum. The EC<sub>50</sub> in the above example is 0.17 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

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## 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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