Human IL22 / IL-22 / Interleukin 22 Protein

Catalog Number: **13059-HNAE**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL-21; IL-22; IL-D110; IL-TIF; ILTIF; TIFa; TIFIL-23; zcyto18

Protein Construction:

A DNA sequence encoding human IL22(NP_065386.1) (Ala34-Ile179) was expressed with a N-terminal Met.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to induce IL-10 secretion in COLO 205 human colorectal adenocarcinoma cells. The ED_{50} for this effect is typically 0.1-0.5 ng/mL.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human IL22 consists of 147 amino acids and predicts a molecular mass of 16.9 KDa. It migrates as an approximately 15 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

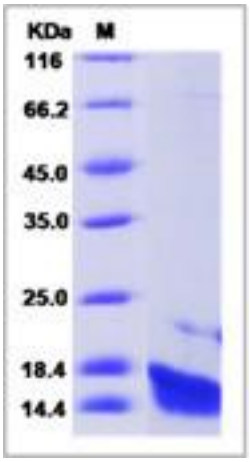
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IL22 is a member of a group of cytokines called the IL-10 family or IL-10 superfamily (including IL-19, IL-20, IL-24, and IL-26), a class of potent mediators of cellular inflammatory responses. It shares use of IL-10R2 in cell signaling with other members of this family, IL-10, IL-26, IL-28A/B and IL-29. IL22 is produced by activated DC and T cells and initiates innate immune responses against bacterial pathogens especially in epithelial cells such as respiratory and gut epithelial cells. IL22 along with IL-17 is rapidly produced by splenic LTi-like cells and can be also produced by Th17 cells and likely plays a role in the coordinated response of both adaptive and innate immune systems. IL22 biological activity is initiated by binding to a cell-surface complex composed of IL-22R1 and IL-10R2 receptor chains and further regulated by interactions with a soluble binding protein, IL-22BP, which shares sequence similarity with an extracellular region of IL-22R1 (sIL-22R1). IL22 and IL-10 receptor chains play a role in cellular targeting and signal transduction to selectively initiate and regulate immune responses. IL22 can contribute to immune disease through the stimulation of inflammatory responses, S100s and defensins. IL22 also promotes hepatocyte survival in the liver and epithelial cells in the lung and gut similar to IL-10. In some contexts, the pro-inflammatory versus tissue-protective functions of IL22 are regulated by the often co-expressed cytokine IL-17A.

References

1.Pestka S. et al., 2004, Annu Rev Immunol. 22: 929-79. 2.Xie MH. et al., 2000, J Biol Chem. 275 (40): 31335-9. 3.Jones BC. et al., 2008, Structure. 16 (9): 1333-44.