

Human Interleukin-22 (IL-22) - Purified

Alternate names:	IL22
Catalog No.:	PA1099XC
Quantity:	1 mg
Background:	IL-22 is a member of the IL-10 family of regulatory cytokines. Members of this family share partial homology in their amino acid sequences, but they are dissimilar in their biological functions. Produced by T lymphocytes, IL-22 inhibits IL-4 production by Th2 cells, and induces acute phase reactants in the liver and pancreas. IL-22 signals through a receptor system consisting of IL-10R-beta/CRF2-4 and IL-22R, both of which are members of the class II cytokine-receptor family.
Species:	Human
Source:	E. coli, E.coli
Format:	State: Lyophilized Purity: >97% Proprietary chromatographic techniques, sterile filtered, > 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Buffer System: Each mg contains 1.6 mg mannitol and 1.2 mg HSA. Reconstitution: Sterile 18MO-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.
Description:	Interleukin-22 Human Recombinant produced in E.Coli is a single, non-glycosylated homodimeric polypeptide chain containing 2 x 146 amino acids. AA Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Pro-Ile-Ser. Biological Activity: The Biological Activity was determined by the ability to activate STAT following receptor ligand interaction. Molecular weight: 34 kDa 33,607 Dalton.
Storage:	Lyophilized product is stable at room temperature for one month, should be stored desiccated below -20 °C. Upon reconstitution IL22 should be stored at 2 - 8 °C up to one week and at -20 °C for longer. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles. Shelf life: one year from despatch.
General Readings:	1. Weber GF, Schlautkötter S, Kaiser-Moore S, Altmayr F, Holzmann B, Weighardt H. Inhibition of interleukin-22 attenuates bacterial load and organ failure during acute polymicrobial sepsis. Infect Immun. 2007 Apr;75(4):1690-7. Epub 2007 Jan 29. PubMed PMID: 17261606. 2. Zheng Y, Danilenko DM, Valdez P, Kasman I, Eastham-Anderson J, Wu J, et al.

Interleukin-22, a T(H)17 cytokine, mediates IL-23-induced dermal inflammation and acanthosis. *Nature*. 2007 Feb 8;445(7128):648-51. Epub 2006 Dec 24. PubMed PMID: 17187052.

3. Wolk K, Sabat R. Interleukin-22: a novel T- and NK-cell derived cytokine that regulates the biology of tissue cells. *Cytokine Growth Factor Rev*. 2006 Oct;17(5):367-80. Epub 2006 Oct 9. PubMed PMID: 17030002.

4. Interleukin-22 and its crystal structure. *Vitam Horm* 2006;74:77-103

5. Chang H, Hanawa H, Liu H, Yoshida T, Hayashi M, Watanabe R, et al. Hydrodynamic-based delivery of an interleukin-22-Ig fusion gene ameliorates experimental autoimmune myocarditis in rats. *J Immunol*. 2006 Sep 15;177(6):3635-43. PubMed PMID: 16951323.

6. Pan H, Hong F, Radaeva S, Gao B. Hydrodynamic gene delivery of interleukin-22 protects the mouse liver from concanavalin A-, carbon tetrachloride-, and Fas ligand-induced injury via activation of STAT3. *Cell Mol Immunol*. 2004 Feb;1(1):43-9. PubMed PMID: 16212920.

Pictures:

Precursor- Protein structure and amino acid sequence

