

IL-22
Catalog # PVGS1253**Specification**

IL-22 - Product Information

Primary Accession [Q9GZX6](#)
Species
Human

Sequence
Ala34-Ile179

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
Measured by its ability to induce IL-10 secretion in COLO 205 (human colon carcinoma cells). The ED₅₀ for this effect is less than 0.3 ng/ml.

Expression System
HEK 293

Formulation **Lyophilized after extensive dialysis against PBS.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH₂O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

IL-22 - Additional Information

Gene ID 50616

Other Names
Interleukin-22, IL-22, Cytokine Zcyto18, IL-10-related T-cell-derived-inducible factor, IL-TIF, IL22, ILTIF, ZCYTO18

Target Background
Interleukin-22(IL-22) belongs to a group of cytokines called the IL-10 family or IL-10 superfamily (including IL-19, IL-20, IL-24, and IL-26) which are a class of potent mediators of cellular inflammatory responses. It shares use of IL-10R2 in cell signaling with other members of this

family, such as IL-10, IL-26, IL-28A/B and IL-29. IL-22 is produced by activated DC and T cells and initiates innate immune responses against bacterial pathogens in epithelial cells such as those in the lung and gut. IL-22 along with IL-17 is produced by splenic LT_i-like cells and Th17 cells and likely plays a role in the coordinated response of both adaptive and innate immune systems. IL-22 signals through a receptor system consisting of IL-10R- β /CRF2-4 and IL-22R, both of which are members of the class II cytokine-receptor family.

IL-22 - Protein Information

Name IL22

Synonyms ILTIF, ZCYTO18

Function

Cytokine that plays a critical role in modulating tissue responses during inflammation (PubMed: [17204547](http://www.uniprot.org/citations/17204547)). Plays an essential role in the regeneration of epithelial cells to maintain barrier function after injury and for the prevention of further tissue damage (PubMed: [17204547](http://www.uniprot.org/citations/17204547)). Unlike most of the cytokines, has no effect on immune cells. Signals through a heterodimeric receptor composed of two subunits, the specific receptor IL22RA1 which is present on non-immune cells in many organs and the shared subunit IL10RB (PubMed: [10875937](http://www.uniprot.org/citations/10875937), PubMed: [18599299](http://www.uniprot.org/citations/18599299)). Ligation of IL22RA1 with IL22 induces activation of the tyrosine kinases JAK1 and TYK2, which in turn activates STAT3. In turn, promotes cell survival and proliferation through STAT3, ERK1/2 and PI3K/AKT pathways (PubMed: [25793261](http://www.uniprot.org/citations/25793261), PubMed: [31311100](http://www.uniprot.org/citations/31311100)). Promotes phosphorylation of GSK3B at 'Ser-9' and CTTN (By similarity). Promotes epithelial cell spreading (By similarity).

Cellular Location

Secreted.

IL-22 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IL-22 - Images