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IL-22

Catalog # PVGS1486

Product Information

Primary Accession	Q9JJY9
Species	Mouse
Sequence	Leu34-Val179, expressed with an N-terminal Met
Purity	> 98% as analyzed by SDS-PAGE > 98% as analyzed by HPLC
Endotoxin Level	
Biological Activity	ED_{50}
Expression System	E. coli
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 ddH_2O or PBS up to 100 □g/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.

Additional Information

Gene ID	50929
Other Names	Interleukin-22, IL-22, IL-10-related T-cell-derived-inducible factor, IL-TIF, IL-TIF alpha, Interleukin-22a, IL-22a, Il22, Il22a, Iltif, Iltifa
Target Background	Interleukin-22 (IL-22) is a member of a group of cytokines called the IL-10 family which include IL-10,IL-19, IL-20, IL-24, and IL-26. IL-22 shares use of the IL-10R2 in cell signaling with other members of this family 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 is produced by activated DCs and T cells and initiates an innate immune response against bacterial pathogens especially in epithelial cells such as those in the respiratory tract and gut. IL-22 along with IL-17 is rapidly produced by splenic LTi-like cells and can also be produced by Th17 cells, which plays a likely role in the coordinated response of both adaptive and innate immune systems.

Protein Information

Name	Il22
Synonyms	Il22a, Iltif, Iltifa
Function	Cytokine that plays a critical role in modulating tissue responses during inflammation (PubMed:33852830, PubMed:35525330). 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:33912578). 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. 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. Promotes phosphorylation of GSK3B at 'Ser-9' and CTTN (PubMed:24742671). Promotes epithelial cell spreading (PubMed:24742671).
Cellular Location	Secreted.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.