Proteins



## **Product** Data Sheet

## IL-22 Protein, Mouse (His-Avi)

Cat. No.: HY-P78150

Synonyms: Interleukin-22; IL-22; Cytokine Zcyto18; IL-TIF; IL-D110; TIFa; TIFIL-23; ZCYTO18

Species: Source: E. coli

Accession: Q9JJY9 (L34-V179)

Gene ID: 50929

Molecular Weight: Approximately 19.7 kDa

## **PROPERTIES**

Biological Activity	Immobilized Biotinylated Mouse IL-22, His Tag at $2\mu g/ml$ ( $100\mu l/well$ ) on the streptavidin precoated plate ( $5\mu g/ml$ ). Dose response curve for Mouse IL-22R alpha 1, hFc Tag with the EC <sub>50</sub> of 6.2ng/ml determined by ELISA.
Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Na2CO3/NaHCO3, 500 mM NaCl, pH 10.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

## **DESCRIPTION**

Background

IL-22 is a secreted IL-10 family cytokine that plays a critical role in modulating tissue responses during inflammation, reactive oxygen species metabolic process as well as the regeneration and spreading of epithelial cells<sup>[1][2][3][4]</sup>. IL-22 is produced by several T cells, ILC3, neutrophils and macrophages, IL-22 has a specific receptor which is composed of IL-22R1 and IL-10R2, presenting on non-immune cells in many organs. Ligation of IL22RA1 with IL22 induces activation of the tyrosine kinases JAK1 and TYK2, which activates STAT3, and p38 MAPK, in turn, promotes cell survival and proliferation through STAT3, ERK1/2, MAPK and PI3K/AKT pathways. IL-22 promotes phosphorylation of GSK3B at 'Ser-9' and CTTN as well<sup>[5]</sup>.

 $IL-22\ gets\ positive\ regulation\ from\ IL-23,\ IL-1\beta,\ IL-7,\ AhR\ and\ Notch,\ IL-22\ gets\ negative\ regulation\ from\ IL-22BP,\ TGF-\beta,\ IL-21BP,\ TGF-B,\ T$ 27, ICOS, c-Maf and IL-25<sup>[6]</sup>.

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