Active Recombinant Mouse Interleukin 22, PEG-tagged

Cat. No. Il22-439M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Pegylated Interleukin-22 Mouse Recombinant produced in E.Coli is a single, non-glycosylated homodimeric polypeptide chain containing 147 amino acids and an aditionalAla amino acid at N-terminus having a molecular mass of 36 kDa as determioned by mass spectometry. However due to enlargedhydrodymanic volume it runs on the SDS-PAGE as a 50 kDa protein and in gel-filtration on Superdex 200 as over 200 kDa protein. The Murine IL-22 is Mono-pegylated (with 20 kDa PEG) purified by proprietary chromatographic techniques.
Species	Mouse
Source	Mouse
Description	Interleukin-22 (IL-22), also known as IL-10-related T cell-derived inducible factor (IL-TIF) was initially identified as a gene induced by IL-9 in mouse T cells and mast cells. Mouse IL-22 cDNA encodes a 179 amino acid residue protein with a putative 33 amino acids signal peptide that is cleaved to generate a 147 aa mature protein that shares approximately 79% and 22% aa sequence identity with human IL-22 and IL-10, respectively. IL-22 has been shown to activate STAT-1 and STAT-3 in several hepatoma cell lines and upregulate the production of acute phase proteins. IL-22 is produced by normal mouse T cells upon Con A activation.
Form	Lyophilized from a concentrated solution at 0.65mg/ml containing 0.003mM NaHCO3.
Purity	Greater than 98.0% as determined by: (a) Analysis by Gel-Filtration. (b) Analysis by

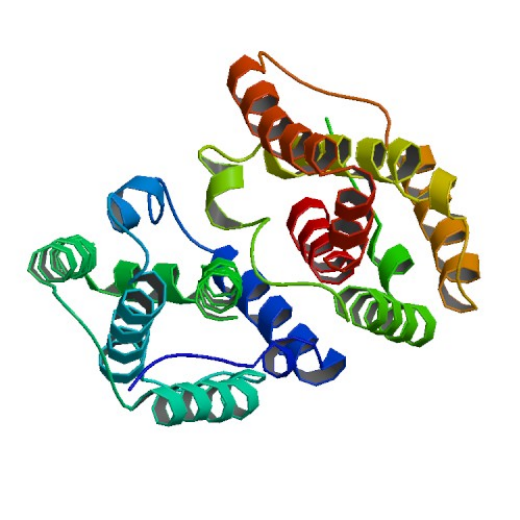
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	SDS-PAGE.
Bio-activity	The ED50 as determined by STAT3 phosphorylation assay in HepG cells. The activity in vitro was found to be ~ 10% compared to the non-pegylated mouse IL22.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Solubility	It is recommended to reconstitute the lyophilized pegylated mouse Interleukin -22 in sterile 0.4% NaHCO3 adjusted to pH 8-9 not less than 100μg/ml, which can then be further diluted to other aqueous solutions.
Storage	Lyophilized pegylated murine IL22 although stable at room temperature for several days, should be stored desiccated below -20°C. Upon reconstitution at 0.1mg/ml pegylated mouse IL22 and up to 2mg/ml, filter and sterilized, the protein can be stored at 4 degrees Celsius for several weeks making it suitable for long term infusion studies using osmotic pumps. At lower concentration addition of a carrier protein (0.1% HSA or BSA) is suggested. Please prevent freeze-thaw cycles.
Pathways	Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway

GENE INFORMATION

Gene Name	Il22 interleukin 22 [Mus musculus]
Official Symbol	Il22
Synonyms	IL-22, IL-TIF, ILTIF, TIFa, IL-10-related T-cell-derived-inducible factor, ILTIFA, IL-D110, zcyto18, MGC79382, MGC79384, TIFIL-23, Interleukin-22, IL-TIF alpha, Interleukin-22a, IL-22a, Interleukin-22 Precursor
Gene ID	50929

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mRNA Refseq	NM_016971
Protein Refseq	NP_058667
UniProt ID	Q9JJY9
Chromosome Location	10 D2; 10 67.0 cM
Function	cytokine activity; cytokine receptor binding
PDB rendering based on 1m4r.	

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