

Recombinant Mouse Interleukin-22

Cat. No. IL22-28M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse IL-22 produced in E. coli is a single, non-glycosylated polypeptide chain containing 147 amino acids and having a molecular mass of 16.7 kDa.
Species	Mouse
Source	E.coli
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 (aa) residue protein with a putative 33 aa 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. Mouse IL-22 expression is also induced in various organs upon lipopolysaccharide injection, suggesting that IL-22 may be involved in inflammatory responses. The functional IL-22 receptor complex consists of two receptor subunits, IL-22R (previously an orphan receptor named CRF2-9) and IL-10Rβ (previously known as CRF2-4), belonging to the class II cytokine receptor family.
Purity	>97% as determined by RP-HPLC and SDS-PAGE.

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Formulation	rmIL-22 was lyophilized after extensive dialysis against PBS.
Specific Activity	Recombinant Mouse IL-22 is fully biologically active when compared to standard. The ED50 as determined by its ability to induce IL-10 secretion in Colo205 cells is less than 0.5ng/ml, corresponding to a Specific Activity of 2.0×10^6 IU/mg.
Endotoxin	Less than 0.1ng/g (1 IEU/g) determined by LAL test.
Reconstitution	It is recommended to reconstitute the lyophilized rmIL-22 in sterile 18MΩ-cm H2O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Storage	Lyophilized rmIL-22 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rmIL-22 should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	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
mRNA Refseq	NM_016971.1
Protein Refseq	NP_058667.1

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MIM	605330
UniProt ID	Q9JJY9
Chromosome Location	10 67.0 cM
Pathway	Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway
Function	cytokine activity; protein binding

Crystal structure of IL-22.

