

Recombinant Mouse Interleukin-22 (rm IL-22)

Synonyms: IL-TIF, TIFa, IL-10-related T-cell-derived-inducible factor,

Introduction: Interleukin-22 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. 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-10R β (previously known as CRF2-4) belonging to the class II cytokine receptor family.

Description: Recombinant mouse Interleukin-22 produced in E.Coli is a single, non-glycosylated homodimeric polypeptide chain containing 147 amino acids and having a molecular mass of 16.7 kDa. The mouse IL-22 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.22 μ m filtered solution in 25 mM Sodiumphosphate, 200 mM NaCl, pH 7.0. The aliquots of 1 μ g and 2 μ g contain Trehalose 5% (w/vol) for better recovery.

Solubility: It is recommended to reconstitute the lyophilized rm IL-22 in sterile water not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm IL-22 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rm IL-22 should be stored for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Amino acid sequence:

MLPVNTRCKL EVSNFQQPYI VNRTFMLAKE ASLADNNTDV RLIGEKLFGR VSAKDQCYLEM
KQVLNFTLED VLLPQSDRFQ PYMQEVVPFL TKLSNQLSSC HISGDDQNIQ KNVRRLLKETV KKLGESGEIK
AIGELDLLFM SLRNACV

Endotoxicity: The endotoxin level is less than 1 EU / μ g determined by LAL method

Biological Activity: Determined by analysis of IL-22 receptor driven STAT activation in human cell line HT-29 the specific activity is found to be $> 2 \times 10^6$ IU/mg.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 μ g	Cat.N°	12340222
<i>medium</i>	10 μ g	Cat.N°	12340223
<i>large</i>	50 μ g	Cat.N°	12340225
<i>x-large</i>	250 μ g	Cat.N°	12340227
<i>xx-large</i>	1000 μ g	Cat.N°	12340228

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