

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 RLIGEKLFGRG VSAKDQCYLM
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.

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<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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Gladiolenweg 2; 26169 Friesoythe; Germany
phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com