

IL-22, Mouse

Cat. No.: Z02197-1

Size: 1.0 mg

Synonyms: IL-TIF, TIFa, IL-10-related T-cell-derived-inducible factor, IL-22, ILTIF, IL-D110, zcyto18, MGC79382, MGC79384, TIFIL-23

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 Interleukin-22 (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. Mouse Interleukin-22 (IL-22) is produced by normal mouse T cells upon Con activation. Interleukin-22 (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. Mouse Interleukin-22 (IL-22) expression is also induced in various organs upon lipopolysaccharide injection, suggesting that Interleukin-22 (IL-22) may be involved in inflammatory responses. The functional Interleukin-22 (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. Recombinant mouse Interleukin-22 (IL-22), produced in *E. coli*, is a single, non-glycosylated polypeptide chain containing 147 amino acids and having a molecular mass of 16,700 Da.

Source: *E. coli*

Species: Mouse

Biological Activity: Recombinant mouse IL-22 is fully biologically active relative to standard. The ED₅₀, as determined by its ability to induce IL-10 secretion in Colo205 cells, is less than 0.5 ng/ml, corresponding to a specific activity of 2.0×10^6 IU/mg.

Molecular Weight: 16,700 Da

Sequence Analysis: The sequence of the first five N-terminal amino acids has been found to be Met-Leu-Pro-Val-Asn.

Formulation: The protein was lyophilized after extensive dialysis against 20mM PB, pH 6.5, 300mM NaCl buffer.

Reconstitution: It is recommended that reconstitute the lyophilized recombinant mouse Interleukin-22 (IL-22) be reconstituted in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Purity: Greater than 97.0%, as determined by the following methods:

- (a) RP-HPLC analysis
- (b) Reducing and non-reducing SDS-PAGE silver stained gel analysis

Endotoxin Level: Less than 0.1 ng/ μ g (1 EU/ μ g) of recombinant mouse Interleukin-22 (IL-22) as determined by LAL test.

Storage: Lyophilized recombinant mouse Interleukin-22 (IL-22) remains stable at room temperature for three weeks, but it is best stored desiccated below -18°C. Upon reconstitution recombinant mouse Interleukin-22 (IL-22) should be stored at 4°C for up to seven days. For long term storage it is recommended that a carrier protein (0.1% HSA or BSA) be added. Avoid repeated freeze-thaw cycles.