

## Recombinant Rat IL-22

### Information

<b>Gene ID</b>	
<b>Accession #</b>	Q198B4
<b>Alternate Names</b>	Cytokine Zcyto 18, TIF
<b>Source</b>	<i>Escherichia coli</i> .
<b>M.Wt</b>	Approximately 16.6 kDa, a single non-glycosylated polypeptide chain containing 146 amino acids.
<b>AA Sequence</b>	LPINSQCKLE AANFQQPYIV NRTFMLAKEA SLADNNTDVR LIGEELFRGV KAKDQCYLMK QVLNFTLEDV LLPQSDRFQP YMQEVVPFLLT KLSIHLSPCH ISGDDQNIQK NVRQLKETVQ KLGESGEIKA IGELDLLFMS LRNACV
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by inducing IL-10 secretion of human COLO 205 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>6</sup> IU/mg.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Rat IL-22	10 µg	100 µg	500 µg

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## Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rRtIL-22 as determined by LAL method.

## Description

IL-22 is belonging to IL-10 family of regulatory cytokines which includes IL-10, IL-19, IL-20, IL-22, IL-24 and IL-26. Members of this family share partial homology in their amino acid sequences, but they are dissimilar in their biological functions. Produced by T lymphocytes and dendritic cells, IL-10 contributes to the inflammatory response in vivo. IL-22 signals through CRF2-4 and IL-22. It along with IL-17 is rapidly produced by splenic LTI-like cells and can be also produced by Th17 cells and likely plays a role in the coordinated response of both adaptive and innate immune systems. Recombinant rat Interleukin-22 contains 146 amino acids and it has approximately 79 % and 92 % amino acid sequence identity with human and murine IL-22.

## Reference

1. Zeng G, Chen CY, Huang D, et al. 2011. J Immunol, 187: 190-9.
2. Cocco CandAiroldi I. 2012. Immunotherapy, 4: 668.
3. Honda K. 2012. Immunity, 37: 952-4.
4. Gurney AL. 2004. Int Immunopharmacol, 4: 669-77.

**APExBIO Technology**

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