

## interleukin 22 receptor antagonist Active Protein | IL22 active protein

Human interleukin 22 receptor antagonist (Y51A)

CATALOG #  
**AAA60572**

HOST  
**E Coli**

### PRODUCT SYNONYMS

interleukin 22 receptor antagonist; Human interleukin 22 receptor antagonist (Y51A); Human Interleukin 22 (mIL-22) antagonist (Y51A); IL22 active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli                                                                                                                                                                                                                                                                                                                                                                                |
| Purity/Purification     | Greater than 98.0% as determined by:<br>(a) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.<br>(b) Gel filtration chromatography under non-denaturing conditions.                                                                                                                                                                                                  |
| Form/Format             | White powder                                                                                                                                                                                                                                                                                                                                                                          |
| Sequence                | Thesequenc eofthefirs tfiveN-ter minalamino acidswasde terminedan dwasfoundt obeAla-Pro -Ile-Ser-S er.                                                                                                                                                                                                                                                                                |
| Sequence Length         | 179                                                                                                                                                                                                                                                                                                                                                                                   |
| Solubility              | It is recommended to reconstitute the lyophilized IL-22 Y51A in sterile H <sub>2</sub> O not less than 100ug/ml, which can then be further diluted to other aqueous solutions containing carrier protein such as BSA, HSA or similar.                                                                                                                                                 |
| Protein Content         | Protein quantitation was carried out by UV spectroscopy at 280 nm using the absorbency value of 0.18 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the DNAMAN computer analysis program of protein sequences.                                                                                                                               |
| Dimers and Aggregates   | Less than 2% as determined by gel filtration under non-denaturing conditions.                                                                                                                                                                                                                                                                                                         |
| Endotoxin               | Less than 0.05 ng/ug (0.5 EU/ug) of recombinant IL-22 (Y51A).                                                                                                                                                                                                                                                                                                                         |
| Formulation             | Interleukin-22 Y51A is lyophilized from a concentrated (1mg/ml) solution in water containing NaHCO <sub>3</sub> .                                                                                                                                                                                                                                                                     |
| Biological Activity     | human IL-22 Y51A mutant is capable of full inhibition of STAT3 phosphorylation induced by mouse interleukin 22 in HepG cells. Its affinity toward immobilized mIL-22 receptor alpha1 extracellular domain (mIL-22 Ralpha1-ECD) or IL-22 binding protein is similar to the non mutated mouse interleukin 22. Human IL-22 antagonist (Y51A) has no agonistic activity in this bioassay. |
| Preparation and Storage | Lyophilized IL-22 Y51A although stable at 4 degree C, should be stored desiccated below -18 degree C. Upon reconstitution interleukin-22 Y51A should be stored at 4 degree C between 2-7 days and for future use below -18 degree C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.                             |

### ADDITIONAL INFORMATION

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| Related Product Information for IL22 active protein | IL-22 is a member of the 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, IL-22 inhibits IL-4 production by Th2 cells, and induces acute phase reactants in the liver and pancreas. IL-22 signals through a receptor system consisting of IL-10R-beta/CRF2-4 and IL-22R, both of which are members of the class II cytokine-receptor family. Recombinant human IL-22 mutant Y51A (numbering according to human IL-22 including signal peptide) produced in E.Coli is a single, non-glycosylated polypeptide chain containing 147 amino acids and having a molecular mass of 16.7 kDa. Preparation of recombinant hIL-22 antagonists provides new tools for the study of IL-22 activity and of eventual therapeutic means for attenuating its negative effects. It was prepared similarly to that described by L. Niv-Spector et al. Protein Eng Des Sel. (PEDS) 25:397-404 (2012). |
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Product Categories/Family for IL22  
active protein

Hormones; Cytokines and Growth Factors

## NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 10719562                                                                                                                       |
| NCBI GeneID                      | 50616                                                                                                                          |
| UniProt Accession #              | Q9GZX6                                                                                                                         |
| Molecular Weight                 | 20,011 Da                                                                                                                      |
| NCBI Official Full Name          | interleukin 22                                                                                                                 |
| NCBI Official Synonym Full Names | interleukin 22                                                                                                                 |
| NCBI Official Symbol             | IL22                                                                                                                           |
| NCBI Official Synonym Symbols    | TIFa; IL-21; IL-22; ILTIF; IL-TIF; IL-D110; zcyto18; TIFIL-23                                                                  |
| NCBI Protein Information         | interleukin-22; IL-10-related T-cell-derived inducible factor; IL-10-related T-cell-derived-inducible factor; cytokine Zcyto18 |
| UniProt Protein Name             | Interleukin-22                                                                                                                 |
| UniProt Gene Name                | <b>IL22</b>                                                                                                                    |
| UniProt Synonym Gene Names       | ILTIF; ZCYTO18; IL-22; IL-TIF                                                                                                  |
| UniProt Entry Name               | IL22_HUMAN                                                                                                                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/interleukin-22-receptor-antagonist/60572>