Thymus and Activation Regulated Chemokine (CCL17), rat recombinant (rrTARC)

Catalog No: 97624
Lot No: XXXXX
Source: *E. coli*
Synonyms: Thymus and activation-regulated chemokine, CCL17, SCYA17, TARC

Background

TARC cDNA encodes a 94 amino acid precursor protein with a 23 amino acid residue signal peptide that is cleaved off to generate the 71 amino acid residue mature secreted protein. Along with CC chemokine family members, CCL-17 has approximately 24-29% amino acid sequence identity with RANTES, MIP-1a, MIP-1b, MCP-1, MCP-2, MCP-3 and I-309. TARC is expressed in thymus, and at a lower level in the lung, colon, and small intestine. TARC is in addition transiently expressed in stimulated peripheral blood mononuclear cells. Recombinant TARC has been shown to be chemotactic for T cell lines but not monocytes or neutrophils. CCL-17 was recently identified to be a specific functional ligand for CCR4, a receptor that is selectively expressed on T cells. CCL17 is one of quite a few Cys-Cys (CC) cytokine genes clustered on the q arm of chromosome 16. CCL17 shows chemotactic activity for T lymphocytes, but not monocytes or granulocytes. CCL17 binds to chemokine receptors CCR4 and CCR8. This chemokine plays important roles in T cell development in thymus as well as in trafficking and activation of mature T cells.

Description

TARC Rat Recombinant produced in *E. coli* is a non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 8.1 kDa. TARC Rat is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a 0.2 µm filtered concentrated solution in 1 x PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized TARC in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized TARC although stable at room temperature for 3 weeks, should be stored desiccated below -18C. Upon reconstitution TARC should be stored at 4C between 2-7 days and for future use below -18C. 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 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

ARATNVGREC CLDYFKGAIP IRKLVTWFRT SVECPKDAIV FETVQGRLIC TDPKDKHVKK AIRHLKNQRL

Activity

Determined by its ability to chemoattract human T-Lymphocytes using a concentration range of 1.0-10.0 ng/ml.

Usage

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