TECK Human, Recombinant

Product Number T9569
Storage Temperature –20 °C

Product Description
Mature human thymus-expressed chemokine (TECK) protein is expressed in E. coli. The 128 amino acid residue methionyl form of recombinant human TECK has a predicted molecular mass of approximately 14.3 kDa.

TECK is a novel CC chemokine that is distantly related (about 20 % amino acid sequence identity) to other CC chemokines. Human TECK cDNA encodes a 150 amino acid residue precursor protein with a 23 amino acid residue signal peptide that is cleaved to yield a 127 amino acid mature protein. The expression of TECK is highly restricted to the thymus and small intestine. Dendritic cells have been shown to be the source of TECK in the thymus, but bone marrow dendritic cells do not express it. TECK is a chemotactic for activated macrophages, dendritic cells and thymocytes. 1 TECK is a specific agonist for the CC chemokine receptor 9 (CCR9). 2 The interplay of TECK and its receptor CCR9 play a role in the recruitment of developing thymocytes to discrete compartments of the thymus. 3 Deletion of the CCR9 gene results in mild early impairment of early T- and B-cell development and diminution of the T-cell receptor gammadelta(+) compartment. 4 The CCR9/TECK interaction provide a cell survival signal against C-FLIP(L) and FAS-mediated apoptosis. 5

The typical ED_{50} for inducing chemotaxis of mouse Bat/3 cells transfected with hGPR-9-6 (hCCR9) is between 0.5-2.0 µg/ml.

Purity: >97% (SDS-PAGE)

The product is lyophilized from a 0.2 µm filtered solution in 30% CH_{3}CN and 0.1% TFA, containing 50 µg of bovine serum albumin per 1µg of cytokine.

Precautions and Disclaimer
This product is for laboratory use only. Please consult the Material Data Safety Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
Stock solutions are prepared at 25 µg/ml or greater in sterile PBS containing at least 0.1% human serum albumin or bovine serum albumin.

Storage/Stability
Stable for at least one year at –20 to –70 °C. Upon reconstitution, store sterile solutions at 2 to 4 °C for one month or at –20 to –70 °C for three months without detectable loss of activity. Avoid repeated freeze-thaw cycles.

References