

## DESCRIPTION

**Source** *E. coli*-derived  
Gln24-Leu150, with an N-terminal Met  
Accession # AAB69981.1

**N-terminal Sequence Analysis** Met

**Predicted Molecular Mass** 14.3 kDa

## SPECIFICATIONS

**Activity** Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CCR9. The ED<sub>50</sub> for this effect is typically 0.2 -1.2 µg/mL.

**Endotoxin Level** <0.01 EU per 1 µg of the protein by the LAL method.

**Purity** >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

**Formulation** Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA with BSA as a carrier protein. See Certificate of Analysis for details.

## PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 100 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** **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.

## BACKGROUND

CCL25, also known as TECK (thymus-expressed chemokine), is a CC chemokine that regulates the trafficking of lymphocytes in the thymus and small intestine. Mature human CCL25 shares 40% amino acid sequence identity with mouse and rat CCL25 (1). CCL25 is produced by stromal cells in the thymus and epithelial cells of the small intestine, particularly the jejunum and ileum (1-3). It binds to and induces chemoattraction through CCR9 (1, 4, 5), and both human and mouse proteins act on human CCR9 (4). CCR9 is expressed on immature pre-T cells and thymocytes (5, 6). CCL25 induces the homing of several lymphocyte populations to the small intestine (3), including Integrin α4β7<sup>+</sup> γδ T cells (6, 7), Integrin αEβ7<sup>+</sup> CD8<sup>+</sup> T cells (8), and IgA-producing plasma cells (2). In cancer, functional CCR9 mediates the metastasis of melanoma cells to the small intestine (9), contributes to the CCL25-dependent migration and invasion of some breast carcinomas (10), and attracts mesenchymal stromal cells to CCL25-expressing multiple myelomas (11). CCL25 contributes to the severity of chronic inflammation in rheumatoid arthritis where it attracts CCR9<sup>+</sup> monocytes and macrophages (12), in endometriosis where it promotes the invasiveness of stromal cells (13), and in atherosclerosis where it contributes to the accumulation of CCR9<sup>+</sup> macrophages in arterial plaques (14).

## References:

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