

DESCRIPTION

Source *E. coli*-derived
Gly42-Ala116
Accession # P27784

N-terminal Sequence Analysis Gly42

Predicted Molecular Mass 8.3 kDa

SPECIFICATIONS

Activity Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CCR1. The ED₅₀ for this effect is typically 0.5-2 ng/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

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

PREPARATION AND STORAGE

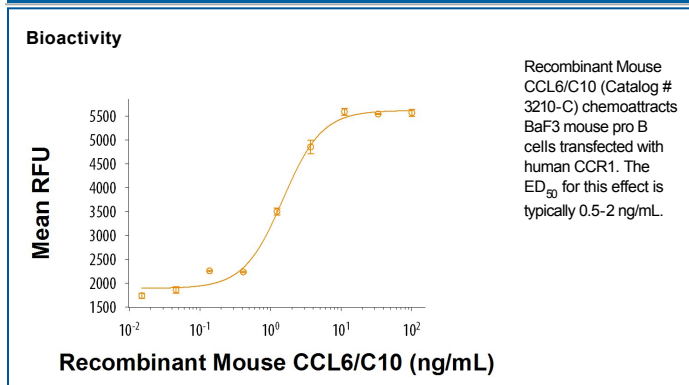
Reconstitution Reconstitute at 100 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

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.

DATA



BACKGROUND

CCL6, also known as C10 and SCYA6, is an 11 kDa member of the MIP-1 family of β -chemokines. CCL6, along with CCL9, CCL15, and CCL23, belongs to the N6 subfamily of proteins that have an N-terminal extension relative to other β -chemokines (1 - 4). The mouse CCL6 cDNA encodes a 116 amino acid (aa) precursor that includes a 21 aa signal sequence (5). Removal of an additional 20 aa at the N-terminal results in an 8 kDa protein (aa 42 - 116) and the transition from a weak CCR1 agonist to a dramatically more potent and efficacious macrophage chemoattractant (3, 6). The N-terminal region of CCL6 and other N6 subfamily chemokines is cleaved following incubation with synovial fluid from inflamed joints as well as with inflammation-associated proteases such as chymase, cathepsin G, and elastase (3). CCL6 is upregulated in activated macrophages at sites of inflammation (5, 7 - 10) and functions as a chemoattractant for additional macrophage influx (8, 9). The inflammatory cytokine IL-13 stimulates CCL6 production which then induces the release of CCL2, CCL3, and proteases involved in tissue repair (10). CCL6 expression is upregulated by the oncoprotein L-Myc but repressed by c-Myc. CCL6 induced by L-Myc promotes cellular transformation and the development of a tumorigenic phenotype (11). N-terminally truncated mouse CCL6 shares 77% and 64% aa sequence identity with rat CCL6 and mouse CCL9, respectively. A human orthologue for mouse CCL6 has not been identified. Conversely, CCL15 and CCL23 and other members of the N6 subfamily have been described in human but not in mouse.

References:

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