Recombinant Mouse CXCL17/VCC-1

Catalog Number: 4270-DM/CF

DESCRIPTION

Source	*E. coli*-derived Ser23-Leu119 Accession # Q5UW37.1
N-terminal Sequence Analysis	Ser31
Predicted Molecular Mass	10.3 kDa

SPECIFICATIONS

Activity	Measured by its ability to induce VEGF expression in mouse endothelial cells. Weinstein, E.J. *et al.* (2006) BBRC **350**:74. The ED_{50} for this effect is 1-5 µg/mL.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
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

Dendritic cell and monocyte chemokine-like protein (DMC), also known as VEGF-correlated chemokine-1 (VCC-1), is a secreted molecule with a size and predicted three-dimensional folding pattern similar to that of chemokines CXCL8/IL-8 and CXCL14/BRAK (1, 2). It has no predicted N-glycosylation sites, so cleavage of a 22 amino acid (aa) signal sequence likely results in a mature mouse DMC molecule of 97 aa and 11 kDa size. DMC is constitutively produced by airway and intestinal epithelium (1). It induces the chemotaxis of quiescent, but not LPS-activated peripheral blood monocytes and dendritic cells, and also binds these cells specifically (1). DMC expression is increased in endothelial cells when they are induced to form tubes *in vitro* (2). Transgenic overexpression in NIH3T3 cells causes up-regulation of proteins such as VEGF and FGF basic, and increases cell growth rate and tumorigenicity (2). DMC and two other chemokines that play roles in angiogenesis, CXCL1/GRO and CXCL8/IL-8, show significantly correlated expression with that of VEGF in primary lung, breast and esophageal tumors (2). DMC is therefore suggested to play a role in tumor angiogenesis. Mature mouse DMC shares 82%, 71% and 66% amino acid sequence identity with rat, human and bovine DMC, respectively.

References:

1. Pisabarro, M. T. *et al.* (2006) J. Immunol. **176**:2069.
2. Weinstein, E. J. *et al.* (2006) Biochem. Biophys. Res. Commun. **350**:74.

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