

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DMC in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant mouse DMC is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human DMC Leu24-Leu119 Accession # Q6UXB2
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human DMC/VCC-1 (Catalog # 4207-DM)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 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 site. Cleavage of a 23 amino acid (aa) signal sequence yields the mature 96 aa human DMC. 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 (1). DMC expression is increased in endothelial cells when they are induced to form tubes *in vitro* (2). Transgenic overexpression in NIH3T3 cells causes upregulation of proteins such as VEGF and FGF basic, and increases cell growth rate and tumorigenicity (2). DMC, plus two other chemokines that play roles in angiogenesis, CXCL1/GRO and CXCL8/IL-8, show a correlated expression pattern with VEGF in primary lung, breast and esophageal tumors (2). DMC is, therefore, suggested to play a role in tumor angiogenesis. Mature human DMC shares 73%, 71% and 64% amino acid sequence identity with bovine, mouse and rat 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.