Recombinant Human CD164 Fc Chimera

Catalog Number: 9679-CD

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived

Human CD164 (Asp24-Thr160) Accession # Q04900-1	DIEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Asp24
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	41 kDa

SPECIFICATIONS

SDS-PAGE	103-115 kDa, reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in MES and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in water.
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

Bioactivity not tested

The Innovator Series. R&D Systems proteins are almost always sold with a bioassay to indicate activity. However, we recognize that sometimes proteins might be novel, and their bioactivity may not be well understood. In addition, some researchers may wish to use polypeptides to make antibodies. To facilitate the advancement of new science, we now offer our Innovator Series of proteins.

BACKGROUND

CD164 is a mucin-like glycoprotein expressed by human hematopoietic progenitors and bone marrow stromal cells. It is composed of a signal sequence, an extracellular domain, a transmembrane domain and an intracellular domain (1). The CD164 cDNA encodes a 178-amino acid polypeptide core, of which residues 140-164 represent the predicted transmembrane domain and residues 165-178 form a short cytoplasmic domain (2). Biochemical and functional analyses of human hematopoietic cell lines and transfectants demonstrate that CD164 comprises a homodimeric molecule of approximately 160 kDa. It plays an important role in mediating or regulating hematopoietic precursor cell adhesion to stroma, and may serve as a potent negative regulator of hematopoietic progenitor cell proliferation (3). Moreover, recent studies have indicated that CD164 may be a basophil activation marker, potentially useful in diagnosis of allergy caused by variety of allergens, including drug allergen (4). The molecule is extensively glycosylated with sites of O-linked glycosylation clustered in two discrete mucin domains separated by a more globular cysteine-rich region (1).

References:

1. Zannettino, A.C. *et al.* (1998) Blood **92**:2613.
2. Watt, S.M. *et al.* (1998) Blood **92**:849.
3. Watt, S.M. and J.Y. Chan (2000) Leuk. Lyphoma. **37**:1.
4. Wolanczyk-Medrala, A. *et al.* (2011) Curr. Pharm. Des. **17**:3786.

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