Recombinant Human CD2F-10/SLAMF9 Fc Chimera

Catalog Number: 8235-CD

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived

N-terminal Sequence Analysis	Arg19 & Val33
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	48 kDa (monomer)

SPECIFICATIONS

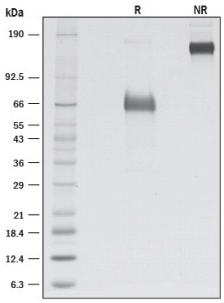
SDS-PAGE	60-70 kDa, reducing conditions
Activity	Measured by its ability to inhibit anti-CD3 antibody induced IL-2 secretion in human T lymphocytes. The ED_{50} for this effect is 0.7-3.5 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE with silver staining.
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.

DATA

SDS-PAGE



1 µg/lane of Recombinant Human CD2F/SLAMF9 Fc Chimera (Catalog # 8235-CD) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by silver staining, showing R bands at 60-70 kDa and NR bands at 150-160 kDa.

BACKGROUND

The CD2 family of receptors is a subset of the immunoglobulin superfamily of glycoproteins. The CD2F-10 protein, also known as SF2001 and CD85-H1, was identified as a CD2 subfamily member using genome sequence data. Based on its structural organization, CD2F-10 belongs to the SLAM (Signaling Lymphocyte Activation Molecule) subfamily of CD2 receptors and is designated SLAMF9. SLAM proteins function as co-receptors for lymphocyte activation and/or adhesion (1). Mature human CD2F-10 is a type I transmembrane glycoprotein that consists of a 218 amino acid (aa) extracellular domain (ECD) with one Ig-like C2-set domain, a 21 aa transmembrane segment, and a 32 aa cytoplasmic domain (2-4). Unlike other SLAM proteins, the cytoplasmic domain of CD2F-10 does not contain consensus immunoreceptor tyrosine-based switch motifs (ITSMs) that mediate interactions with the signal transduction proteins SAP or EAT-2 (1). Within aa 19-210, human CD2F-10 shares 57% and 59% aa sequence identity with mouse and rat CD2F-10, respectively. Alternative splicing of human CD2F-10 generates an isoform that lacks the Ig-like C2-set domain. CD2F-10 is expressed in hematopoietic tissues and cell lines (3). R&D in house data indicate that CD2F-10 inhibits the secretion of IL-2 from activated human T cells.

References:

1. Cannons, J.L. *et al.* (2011) Annu. Rev. Immunol. **29**:665.
2. Fennelly, J.A. *et al.* (2001) Immunogenetics **53**:599.
3. Zhang, W. *et al.* (2001) Clin. Cancer Res. **7**:822s.
4. Fraser, C.C. *et al.* (2002) Immunogenetics **53**:843.

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