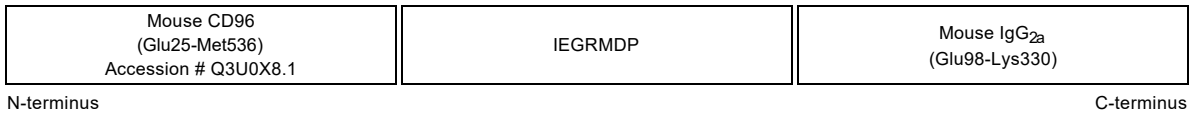
Recombinant Mouse CD96 Fc Chimera

Catalog Number: 10421-CD

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived mouse CD96 protein



N-terminal Sequence Analysis	Glu25
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	84 kDa

SPECIFICATIONS

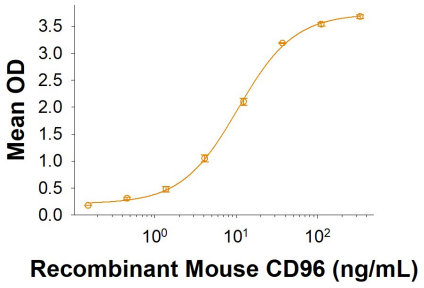
SDS-PAGE	135-160 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse CD155/PVR (Catalog # 6909-CD) is immobilized at 0.25 µg/mL (100 µL/well), Recombinant Mouse CD96 Fc Chimera (Catalog # 10421-CD) binds with an ED_{50} of 4-24 ng/mL.
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 PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in 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

Binding Activity



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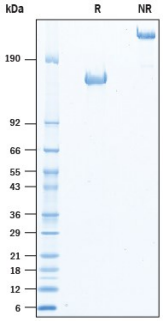
SDS-PAGE



2 µg/lane of Recombinant Mouse CD96 Fc Chimera Protein (Catalog # 10421-CD) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 135-160 kDa and 270-320, respectively.

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Recombinant Mouse CD96 Fc Chimera

Catalog Number: 10421-CD

BACKGROUND

CD96, also known as Tactile (T cell-activated increased late expression), is a 160 kDa type I transmembrane glycoprotein of the Ig superfamily that shows peak expression 6-9 days after activation of T, NK, and a subpopulation of B cells (1, 2). The mature extracellular domain (ECD) of CD96 contains three highly N- and O-glycosylated Ig-like domains, with the two N-terminal domains being V-type and the distal domain a C-type structure (1). Within the mature ECD, mouse CD96 shares 79% and 53% amino acid (aa)sequence identity with rat and human CD96, respectively. In human, a splice variant with a 16 aa deletion in the second V-type domain, called CD96v2, can be expressed (2). CD96 is also frequently expressed on acute myeloid leukemia and myelodysplastic stem cells (3, 4). It is expressed on CD4+ and CD8+ T cells, plus NK cells and select B cells (5). Low expression of adhesive human CD96 is a rare cause of C syndrome, a set of developmental anomalies in cranial bone (trigonocephaly), skin and viscera, demonstrating a role for CD96 in development of these tissues (2, 6). An 80 kDa soluble form is elevated in human serum during chronic hepatitis B (9). The most N-terminal Ig-like domain of human CD96 binds to CD155/PVR (poliovirus receptor), but CD96/CD155 interaction is species-specific (2, 7, 10). On NK cells, co-stimulatory CD96 and DNAM-1 (CD226) are thought to have paired activity with inhibitory TIGIT, all of which bind CD155 and various nectins (11, 12). CD96 can promote NK cell adhesion to, and killing of target cells, including tumors that express CD155 (10, 11).

References:

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