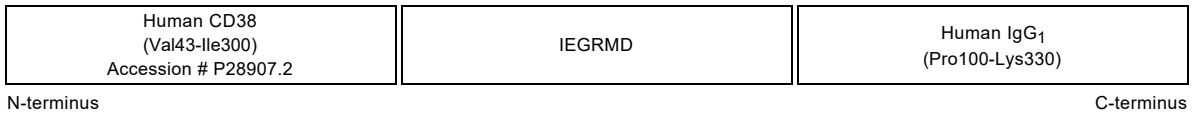
Biotinylated Recombinant Human CD38 Fc Chimera

Catalog Number: BT10920

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived human CD38 protein



N-terminal Sequence Analysis	Val43
Structure / Form	Disulfide-linked homodimer, Biotinylated via amines
Predicted Molecular Mass	32 kDa

SPECIFICATIONS

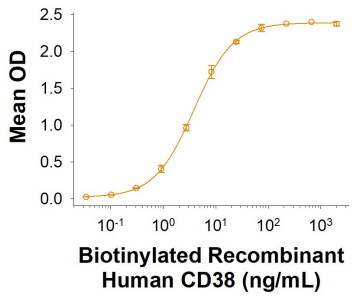
SDS-PAGE	64-76 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human CD38 Fc Chimera binds to Human CD38 Antibody (Catalog # MAB2404) with an ED_{50} of 1.00-10.0 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL 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 MES and NaCl with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 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.

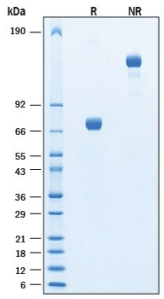
DATA

Binding Activity



Biotinylated Recombinant Human CD38 Fc Chimera Protein Binding Activity. Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human CD38 Fc Chimera Protein (Catalog # BT10920) binds to Human CD38 Antibody (Catalog # MAB2404) with an ED_{50} of 1.00-10.0 ng/mL.

SDS-PAGE



Biotinylated Recombinant Human CD38 Fc Chimera Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human CD38 Fc Chimera Protein (Catalog # BT10920) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 64-76 kDa and 130-150 kDa, respectively.

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BACKGROUND

CD38, also known as ADP-ribosyl cyclase, converts NAD(P)+ into three separate products with calcium mobilizing ability: cyclic ADP-ribose, NAADP+, and ADP-ribose (1). CD38 is a Type II transmembrane glycoprotein composed of an intracellular domain, a single transmembrane helix domain, and a large extracellular domain that contains the catalytic site (2). CD38 is expressed in B and T lymphocytes, osteoclasts, and in cardiac, pancreatic, liver and kidney cells (3,4). Through its production of cyclic ADP-ribose, CD38 modulates calcium-mediated signal transduction in many types of cells (5,6). CD38 is also reported to bind as a receptor to trigger signaling cascades (7,8). Through both mechanisms, CD38 influences proliferation and trafficking (8,9). CD38 is used as a marker for poor prognosis in chronic lymphocytic leukemia and multiple myeloma and is an attractive cancer immunotherapy drug target (8-11).

References:

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