

Active Recombinant Human CD38 protein, His/Avi-tagged, Biotinylated

Cat. No. CD38-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human CD38(Val43-Ile300) protein, fused to His/Avi tag at the C-terminus, was expressed in HEK293 cells .
Species	Human
Source	HEK293
ProteinLength	Val43-Ile300
Description	CD38, also known as ADP-ribosyl cyclase, is a Type II integral membrane protein. The enzyme is able to transform NAD(P)⁺ into three different products with calcium mobilizing ability, cyclic ADP-ribose, NAADP⁺, and ADP-ribose (1). CD38 is expressed in B and T lymphocytes, osteoclasts, and in cardiac, pancreatic, liver and kidney cells (2, 3). Through its production of cyclic ADP-ribose, CD38 modulates calcium-mediated signal transduction in many types of cells, including neutrophils and pancreatic beta cells (4, 5). Our Avi-tag Biotinylated Recombinant Human CD38 features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.
Predicted N Terminal	Val43
Form	Supplied as a 0.2

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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	µm filtered solution in PBS.
Bio-activity	Measured by its ability to convert the substrate nicotinamide guanine dinucleotide (NGD+) to cyclic GDP-ribose. The specific activity is >1500 pmol/min/µg, as measured under the described conditions. Measured by its binding ability in a functional ELISA. When Human CD38 Antibody is immobilized at 1 µg/mL (100 µL/well), it binds to Biotinylated Recombinant Human CD38 His-tag Avi-tag with an ED50 of 1-6 ng/mL.
Molecular Mass	40-52 kDa, under reducing conditions
Endotoxin	<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.
Applications	Binding Activity, Enzyme Activity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 °C as supplied. 3 months, -20 to -70 °C under sterile conditions after opening.
Conjugation	Biotin

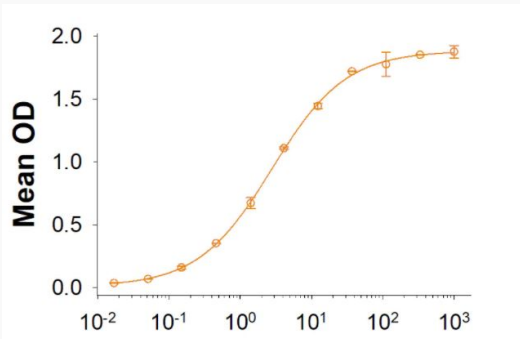
GENE INFORMATION

Gene Name	CD38 CD38 molecule [Homo sapiens]
Official Symbol	CD38

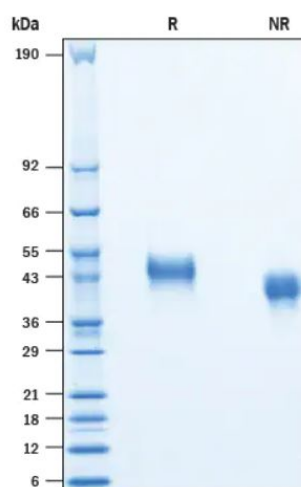
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Synonyms	CD38; CD38 molecule; CD38 antigen (p45); ADP-ribosyl cyclase 1; ADP ribosyl cyclase 1; NAD(+) nucleosidase; cADPr hydrolase 1; cyclic ADP-ribose hydrolase 1; ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase; T10;
Gene ID	952
mRNA Refseq	NM_001775
Protein Refseq	NP_001766
MIM	107270
UniProt ID	P28907
Binding Activity	

SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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