

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

Cat. No. CD38-1822H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Human CD38, His Tag is expressed from human 293 cells (HEK293). It contains AA Val 43 - Ile 300 (Accession # NP_001766.2). Biotinylation of this product is performed using Avitag technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin. The biotin to protein ratio is 0.5-1 as determined by the HABA assay.
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Species	Human
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Source	HEK293
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ProteinLength	AA Val 43 - Ile 300
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Description	CD antigen CD38 is also known as ADP-ribosyl cyclase 1, which belongs to the ADP-ribosyl cyclase family. CD38 is expressed at high levels in pancreas, liver, kidney, brain, testis, ovary, placenta, malignant lymphoma and neuroblastoma. CD38 is a multifunctional ectoenzyme that catalyzes the synthesis and hydrolysis of cyclic ADP-ribose (cADPR) from NAD⁺ to ADP-ribose. These reaction products are essential for the regulation of intracellular Ca²⁺. The loss of CD38 function is associated with impaired immune responses, metabolic disturbances, and behavioral modifications. The CD38 protein is a marker of cell activation. It has been connected to HIV infection, leukemias, myelomas, solid tumors, type II diabetes mellitus and bone metabolism. CD38 has been used as a prognostic marker in leukemia.
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Predicted N Terminal	Val 43
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.
Bio-activity	Immobilized Anti-CD38 MAb, Human IgG1 at 5 µg/mL (100 µL/well) can bind Biotinylated Human CD38, His Tag with a linear range of 0.08-1.28 µg/mL.
Molecular Mass	This protein carries an Avi tag at the C-terminus, followed by a polyhistidine tag. The protein has a calculated MW of 32.5 kDa. The protein migrates as 45-48 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per µg by the LAL method.
Purity	>90% as determined by SDS-PAGE.
Storage	For long term storage, the product should be stored at lyophilized state at -20°C or lower. Please avoid repeated freeze-thaw cycles. No activity loss is observed after storage at: 4-8°C for 12 months in lyophilized state; -70°C for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.
Conjugation	Biotin

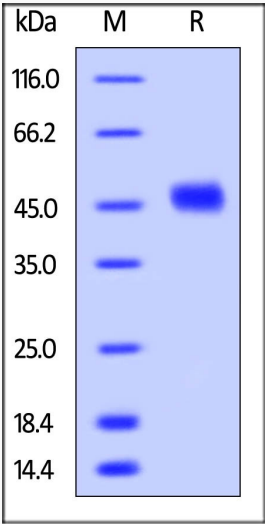
GENE INFORMATION

Gene Name	CD38 CD38 molecule [Homo sapiens (human)]
Official Symbol	CD38

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Synonyms	ADPRC1; ADPRC 1; 2'-phospho-ADP-ribose cyclase; 2'-phospho-cyclic-ADP-ribose transferase; ADP-ribose cyclase 1; CD38 antigen (p45); NAD(+) nucleosidase; cluster of differentiation 38; cyclic ADP-ribose hydrolase 1; ecto-nicotinamide adenine dinucleotide glycohydrolase
Gene ID	952
mRNA Refseq	NM_001775.3
Protein Refseq	NP_001766.2
UniProt ID	P28907
SDS-PAGE	 Biotinylated Human CD38, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.