

Recombinant Human CD38 Protein (Va43-Ile300), His-tagged, Biotinylated

Cat. No. CD38-443H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD38 Protein (NP_001766.2) (Va43-Ile300) was produced by HEK293 Cells expression system. This protein was expressed with a C-terminal polyhistidine tag. The purified protein was biotinylated in vitro.
Species	Human
Source	HEK293
ProteinLength	Va43-Ile300
Description	The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 32 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. Cluster of differentiation 38 (CD38), also known as ADP-ribosyl cyclase, is a glycoprotein found on the surface of many immune cells (white blood cells), including CD4+, CD8+, B and natural killer cells. It shares several characteristics with ADP-ribosyl cyclase 2 CD157. CD38 is a multifunctional ectoenzyme that catalyzes the synthesis and hydrolysis of cyclic ADP-ribose (cADPR) from NAD⁺ to ADP-ribose. It also functions in cell adhesion, signal transduction and

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	calcium signaling. CD38 has been used as a prognostic marker in leukemia. It can also be used to identify plasma cells.
Predicted N Terminal	Val 43
Form	Lyophilized from sterile Sterile PBS. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant CD38 consists of 269 amino acids and predicts a molecular mass of 31.3 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.
Conjugation	Biotin

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GENE INFORMATION

Gene Name	CD38 CD38 molecule [Homo sapiens]
Official Symbol	CD38
Synonyms	CD38; CD38 molecule; CD38 antigen (p45); ADP-ribosyl cyclase 1; T10;
Gene ID	952
mRNA Refseq	NM_001775
Protein Refseq	NP_001766
MIM	107270
UniProt ID	P28907

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