

Recombinant Mouse CD38 Protein (His Tag)

Catalog No. PKSM040814

Note: Centrifuge before opening to ensure complete recovery of vial contents.

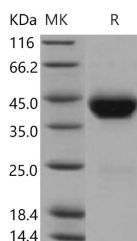
Description

Synonyms	cADPr hydrolase 1;CD38 antigen (p45);CD38 antigen;CD38 molecule;CD38;Cyclic ADP-ribose hydrolase 1;Cyclic ADP-ribose Hydrolase;EC 3.2.2.5;NAD(+) nucleosidase;T10;;ADPRC 1-rs1;ADPRC1;Cd38;Cd38-rs1;I-19
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Leu 45-Thr 304
Accession	NP_031672.2
Calculated Molecular Weight	31.3 kDa
Observed molecular weight	38-42 kDa
Tag	C-His
Bioactivity	Measured by its ability to convert the substrate nicotinamide guanine dinucleotide (NGD+) to cyclic GDPribose. The specific activity is > 50, 000pmols/min/ug.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM MES, 0.15M NaCl, pH 6.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

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Background

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 320 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 calcium signaling. CD38 has been used as a prognostic marker in leukemia. It can also be used to identify plasma cells.

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