



Recombinant Protein Technical Manual

Recombinant Mouse CD38 Protein (His Tag)(Active)

RPES4036

Product Data:

Product SKU: RPES4036

Size: 10µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_031672.2

Protein Information:

Molecular Mass: 31.3 kDa

AP Molecular Mass: 38-42 kDa

Tag: C-His

Bio-activity: Measured by its ability to convert the substrate nicotinamide guanine dinucleotide (NGD+) to cyclic GDPribose. The specific activity is >50,000pmols/min/ug.

Purity: > 97 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

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;I9

Immunogen Information:

Sequence: Leu 45-Thr 304

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 associate 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.