

Human CellExp™ CD38, Human Recombinant

rev 05/21

CATALOG NO:	P1014-10 10 µg P1014-50 50 µg
ALTERNATE NAMES:	ADP-Ribosyl Cyclase 1, ADPRC 1, Cyclic ADP-ribose Hydrolase 1, cADPr hydrolase 1, ADPRC 1, cADPr hydrolase 1, T10, EC 3.2.2.6, 2'-phospho-ADP-ribosyl cyclase, 2'-phospho-cyclic-ADP-ribose transferase, EC 2.4.99.20
MOL. WT.	56 kDa, calculated (with human Fc Tag fused to C-terminus)
SOURCE:	HEK 293 Cells
PURITY:	> 95% SDS-PAGE
FORM:	Lyophilized
FORMULATION:	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4) with 5% Trehalose
SPECIFIC ACTIVITY:	The specific (Cyclase) activity is > 10 mU/mg, as measured under the described conditions using BioVision's CD38 (Cyclase) Activity Assay Kit (Cat. No. K2042).
UNIT DEFINITION:	One unit is the amount of enzyme that cleaves the substrate nicotinamide guanine dinucleotide (NGD+) and liberates 1 µmol MAP per minute at pH 7.5 and 37 °C
STORAGE CONDITIONS:	Store lyophilized protein at -20 °C. Once reconstituted, aliquot and store at -20 °C or -70 °C. Avoid repeated freeze-thaw cycles.
DESCRIPTION:	CD38 is a glycoprotein found on the surface of many immune cells (white blood cells), including CD4+, CD8+, B lymphocytes and natural killer cells. CD38 has known functions in cell adhesion, signal transduction and calcium signaling and can act as an enzyme or receptor. As a receptor, CD38 can attach to CD31 on the surface of T cells, thereby activating those cells to produce a variety of cytokines. As an enzyme, 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 Ca ²⁺ . The loss of CD38 function is associated with impaired immune responses, metabolic disturbances, and behavioral modifications including social amnesia possibly related to autism. 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, as well as some genetically determined conditions.
AMINO ACID SEQUENCE:	Val 43 – Ile 300

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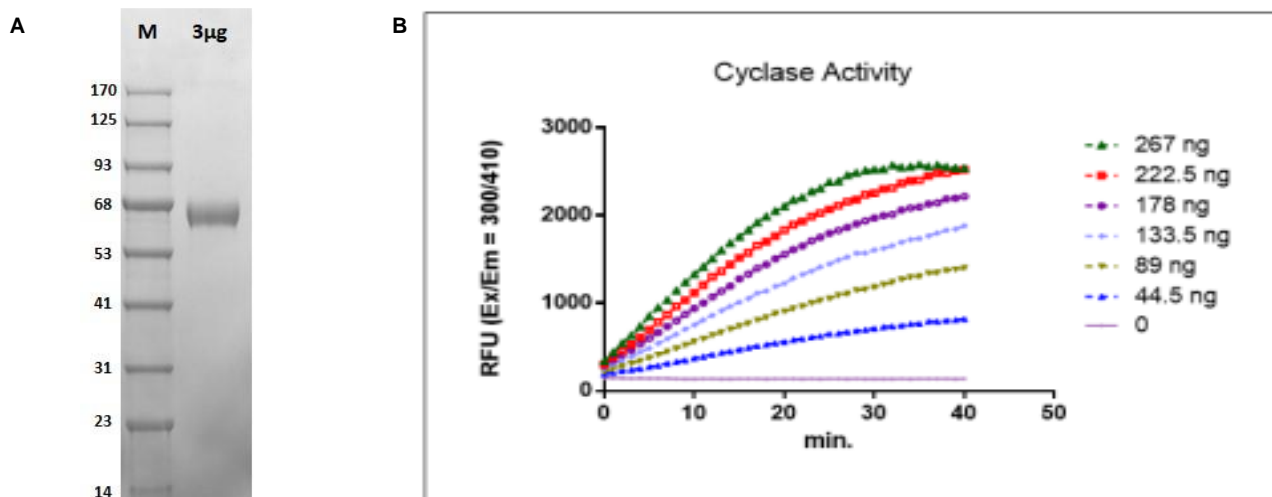


Fig. A. SDS-PAGE (4-20%) of Recombinant CD38: Recombinant protein loaded under reducing conditions and stained with Coomassie Blue. The protein migrates as a ~65 kDa protein on SDS-PAGE due to glycosylation

Fig. B. Specific activity: The specific activity is > 10 mU/mg as measured by its ability to cleave nicotinamide guanine dinucleotide (NGD+) and liberate 1 µmol MAP per minute at pH 7.5 and 37°C using BioVision's CD38 (Cyclase) Activity Assay Kit (Cat. No. K2042).

RELATED PRODUCTS:

- CD38 (Hydrolase) Inhibitor Screening Kit (Fluorometric) (Cat. No. K2086)
- CD38 (Cyclase) Activity Assay Kit (F) (Cat. No. K2042)
- Anti-CD38 (Isatuximab) Humanized Antibody (Cat. No. A2319)
- Human CellExp™ PECAM-1, Human Recombinant (Cat. No. 7184)
- Human CellExp™ CD38, Mouse Recombinant (Cat. No. P1335)
- Human CellExp™ CD172A / SIRP, Human Recombinant (Cat. No. 7506)
- Human CellExp™ CD155, Human Recombinant (Cat. No. 7462)
- Human CellExp™ CD166/ ALCAM, Human Recombinant (Cat. No. 7437)
- Human CellExp™ Siglec-15, Human Recombinant (Cat. No. P1343)
- Human CellExp™ CD273, Human Recombinant (Cat. No. 7369)
- Human CellExp™ CD36, human recombinant (Cat. No. 7371)

FOR RESEARCH USE ONLY! Not to be used on humans.

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