

Product Data Sheet

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CD38 Protein, Rat (HEK293, Fc)

Cat. No.:	HY-P72897
Synonyms:	ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; 2'-phospho-ADP-ribosyl cyclase; ADPRC 1; CD38
Species:	Rat
Source:	HEK293
Accession:	Q64244 (W45-V303)
Gene ID:	25668
Molecular Weight:	Approximately 67 kDa

PROPERTIES	
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AA Sequence	WPRSPLVWKGKPTTKHFADIILGRCLIYTQILRPEMRDQDCKKILSTFKRGFISKNPCNITNEDYAPLVKLVTQTIPCNKTLFWSKSKHLAHQYTWIQGKMFTLEDTLLGYIADDLRWCGDPSTSDMNYDSCPHWSENCPNNPVAVFWNVISQKFAEDACGVVQVMLNGSLSEPFYRNSTFGSVEVFNLDPNKVHKLQAWVMHDIKGTSSNACSSPSINELKSIVNKRNMIFACQDNYRPVRFLQCVKNPEHPSCRLNVISUNAIFACQDNYRP
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The CD38 protein performs multiple essential functions. It is responsible for synthesizing two crucial second messengers, cyclic ADP-ribose and nicotinate-adenine dinucleotide phosphate. Cyclic ADP-ribose acts as a second messenger for glucose-induced insulin secretion, while nicotinate-adenine dinucleotide phosphate functions as a calcium mobilizer. CD38 also possesses cADPR hydrolase activity, adding to its functional repertoire. Additionally, CD38 regulates osteoclastic bone resorption, most likely through the production of cyclic ADP-ribose and the initiation of a calcium ion signal via activation of

the ryanodine receptor.

Caution: Product has not been fully validated for medical applications. For research use only.

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