Proteins

Inhibitors



Product Data Sheet

CD38 Protein, Human (HEK293, His)

Cat. No.: HY-P70731

Synonyms: ADP-ribosyl cyclase/cyclic ADP-ribose hydrolase 1; ADP-ribosyl cyclase 1; Cyclic ADP-ribose

hydrolase 1; CD38 antigen; CD38 molecule; CD38

Human Species: Source: **HEK293**

Accession: P28907 (V43-I300)

Gene ID: 952

Molecular Weight: 38-50 kDa

PROPERTIES

AA	Seq	luen	ce
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VPRWRQQWSG PGTTKRFPET VLARCVKYTE IHPEMRHVDC QSVWDAFKGA FISKHPCNIT EEDYQPLMKL GTQTVPCNKI LLWSRIKDLA FTLEDTLLGY LADDLTWCGE HQFTQVQRDM FNTSKINYQS CPDWRKDCSN NPVSVFWKTV SRRFAEAACD VVHVMLNGSR SKIFDKNSTF GSVEVHNLOP EKVQTLEAWV LCQDPTIKEL IHGGREDSRD ESIISKRNIQ FSCKNIYRPD

KFLQCVKNPE DSSCTSEI

Appearance

Solution.

Formulation Supplied as a 0.2 µm filtered solution of PBS, pH 7.4.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconsititution N/A

Storage & Stability Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for

extended storage. Avoid repeated freeze-thaw cycles.

Shipping Shipping with dry ice

DESCRIPTION

Background

The CD38 Protein assumes a pivotal role in cellular signaling, being a proficient synthesizer of cyclic ADP-ribose (cADPR), a recognized second messenger crucial for glucose-induced insulin secretion. Moreover, it facilitates the synthesis of the calcium mobilizer nicotinate-adenine dinucleotide phosphate, NAADP(+), derived from 2'-phospho-cADPR and nicotinic acid, as well as from NADP(+) and nicotinic acid. Operating at both pH 5.0 and pH 7.4, CD38 Protein exhibits a preference for transforming 2'-phospho-cADPR into NAADP(+) while selectively cleaving NADP(+) to cADPR and ADPRP rather than generating NADDP(+). Notably, it also showcases cADPR hydrolase activity, highlighting its multifaceted role in the dynamic regulation of these crucial signaling molecules. The integration of these activities underscores the significance of CD38 Protein in modulating cellular responses, particularly in the context of insulin secretion and calcium mobilization.

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

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