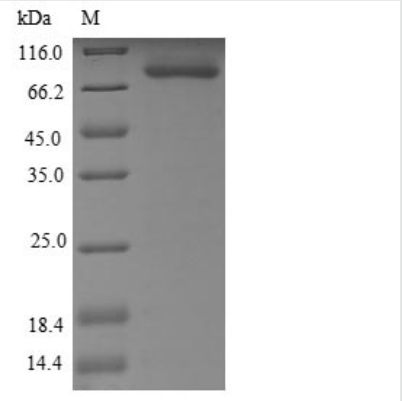
Recombinant Human ATP-dependent DNA helicase Q1 (RECQL)

Product Code	CSB-EP019537HU
Relevance	DNA helicase that may play a role in the repair of DNA that is damaged by ultraviolet light or other mutagens. Exhibits a magnesium-dependent ATP-dependent DNA-helicase activity that unwinds single- and double-stranded DNA in a 3'-5' direction.
Abbreviation	Recombinant Human RECQL protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P46063
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MASVSALTEELDSITSELHAVEIQIQELTERQQELIQKKKVLTKKIKQCLEDSDA GASNEYDSSPAAWNKEDFPWSGKVKDILQNVFKLEKFRPLQLETINVTMAGKE VFLVMPTGGGKSLCYQLPALCSDGFTLVICPLISLMEDQLMVLKQLGISATMLN ASSSKEHVKWVHAEMVNKNSELKLIYVTPEKIAKSKMFMSRLEKAYEARRFTRI AVDEVHCCSQWGHDFRPDYKALGILKRQFPNASLIGLTATATNHVLTDAQKILC IEKCFTFTASFNRPNLYYEVRQKPSNTEDFIEDIVKLINGRYKGQSGIIYCFSQK DSEQVTVSLQNLGIHAGAYHANLEPEDKTTVHRKWSANEIQVVVATVAFGMGI DKPDVRFVIHHSMSKSMENYYQESGRAGRDDMKADCILYYGFGDIFRISSMVV MENVGQQKLYEMVSYCQNISKCRRVLMAQHFDEVWNSEACNKMCDNCCKD SAFERKNITEYCRDLIKILKQAEELNEKLTPLKLIDSWMGKGAAKLRVAGVVAPT LPREDLEKIIAHFLIQQYLKEDYSFTAYATISYLKIGPKANLLNNEAHAITMQVTK STQNSFRAESSQTCHSEQGDKKMEEKNSGNFQKKAANMLQQSGSKNTGAKK RKIDDA
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	RECQL
Protein Names	DNA helicase, RecQ-like type 1 Short name: RecQ1 DNA-dependent ATPase Q1 RecQ protein-like 1 RECQ1, RECQL1
Expression Region	1-649aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag-Free

Mol. Weight	73.5 kDa
Protein Length	Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The production of this Recombinant Human VP35 protein began at the genetic level, where the coding sequence for the VP35 protein was first isolated and cloned into an expression plasmid vector. Recombinant DNA technology was used in the process. Next step was cloning. The expression vector must be introduced into the host cell (E.coli) so that the cells could be cultured and expressed the desired RECQL protein. And we finally got the recombinant RECQL protein with the purity of 85%+ determined by SDS-PAGE.

Active adenosine triphosphate (ATP) is required for inflammasome activation. Intracellular ATP is released after cellular stress and/or activation, and purinergic signaling has been shown to modulate inflammation and immunity. In the extracellular space, ATP is rapidly hydrolysed in a stepwise manner to ADP, AMP (adenosine monophosphate) and adenosine by ectoenzymes. Extracellular ATP (eATP) signals through both ATP-gated ion channels P2X and G protein-coupled receptor (GPCR) P2Y membrane receptors, whereas ADP signals through P2Y receptors and adenosine through P1 receptors (or A receptors). Extracellular adenosine level is the result of adenosine production from extracellular ATP and ADP, its degradation into inosine and its reuptake by cells. Both ATP and adenosine can be transported outside of the cell via diffusion or active transport, whereas only adenosine can enter the cells through adenosine transporters. Intracellular adenosine is converted to ATP via phosphorylation steps mediated by adenosine kinase (AK) and AMP kinase (AMPK). ATP-derived adenosine and its subsequent signalling through P1 receptors have beneficial roles in acute disease states.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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of lyophilized form is 12 months at -20°C/-80°C.