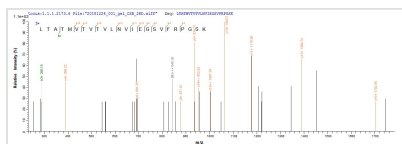


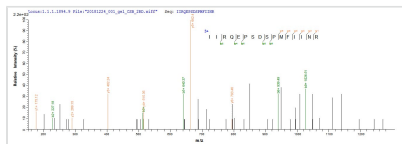


Recombinant Mouse Desmoglein-1-alpha (Dsg1a), partial

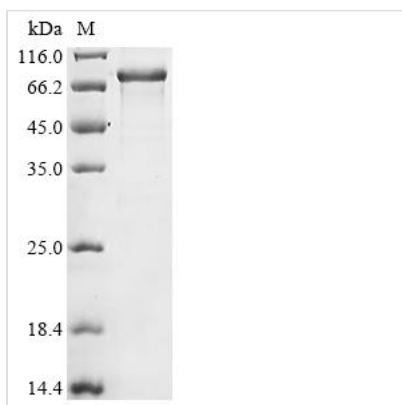
Product Code	CSB-EP723414MO
Abbreviation	Recombinant Mouse Dsg1a protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q61495
Storage Buffer	Tris-based buffer, 50% glycerol
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	EWIKFAAACREGEDNSKRNPIAKIHSDCAANQPVTYRISGVGIDQPPYGIFIINQ KTGEINITSIVDREVTPFFIIYCRALNAQGQDLENPLELRVRVMDINDNPPVFSM TTFLGQIEENSANANTLVMKLNATDADEPNLNLSMIAFKIIRQEPSDSPMFIINRK TGEIRTMNNFLDREQYSQYSLVVRGSDRDGGADGMSAESECSITILDVNDNIP YLEQSSYDITIEENALHSQLVQIRVIDLDEEFSDNWKAIIFFISGNEGNWFEIEMN ERTNVGTLKVVKPLDYEAMKNLQLSIGVRNVAEFHQSIISQYRLTATMTVTVL NVIEGSVFRPGSKTFVVDNRMEANHRVGEFVATDLDTGRASTNVRYEMGNPN ENLLVDSRTGIITLRNRVTMEQYQRLNGEYKGTVLSIDDSLQRTCTGTIVIELS GTGWVTGSESGSGSSSGSGDDRDRVTNGYQGTSSSTENPQRVTGSGWGGSGID GTRPNTNPFQGDPEDETLETPLYGDNVHFGP
Research Area	Others
Source	E.coli
Target Names	Dsg1a
Protein Names	Recommended name: Desmoglein-1-alpha Short name= Desmoglein-1 Short name= Dsg1-alpha Alternative name(s): DG1 DGI Desmosomal glycoprotein I
Expression Region	50-564aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	77.2 kDa
Protein Length	Extracellular Domain
Image	



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP723414MO could indicate that this peptide derived from E.coli-expressed Mus musculus (Mouse) Dsg1a.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP723414MO could indicate that this peptide derived from E.coli-expressed Mus musculus (Mouse) Dsg1a.



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

Description

Co-cloning the gene encoding the mouse Desmoglein-1-alpha (Dsg1a) (50-564aa) with the N-terminal 10xHis-SUMO-tag gene and C-terminal Myc-tag gene into a plasmid vector leads to the formation of recombinant plasmid. The resulting recombination plasmid is transformed into E.coli cells. E.coli cells containing the recombinant plasmid survive in the presence of a specific antibiotic and are selected to be cultured under conditions conducive to the expression of the gene of interest. Following expression, the recombinant mouse Dsg1a protein is isolated and purified from the cell lysate using affinity purification. Denaturing SDS-PAGE is utilized to resolve the resulting recombinant mouse Dsg1a protein, demonstrating a purity exceeding 85%.

Dsg1a is a calcium-binding protein found in layered tissues, crucial for maintaining skin integrity and barrier function [1][2]. It plays a role in cell-to-cell adhesion and junction assembly among skin cells [3][4]. Dsg1a is involved in maintaining fibrous protein stability, essential for skin cell renewal, and preventing toxin-induced skin detachment [5]. Additionally, Dsg1a is regulated by transcription factors like Klf5, aiding in corneal stability and basal cell proliferation [6][7]. This protein is also associated with skin barrier formation and repair, as well as controlling allergic reactions [8][9]. Overall, Dsg1a is a vital component of desmosomes, contributing to skin integrity, barrier function, and cell adhesion.

References:

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- [8] A. Cros, A. Juan, R. Leclère, J. Sampaio, S. Heurtebise-Chrétien, & E. Ségura, Homeostatic activation of aryl hydrocarbon receptor by dietary ligands dampens cutaneous allergic responses by controlling langerhans cells migration,, 2023. <https://doi.org/10.1101/2023.01.24.525336>
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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

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.