

## Product datasheet for RC214121

### Desmoglein 4 (DSG4) (NM\_177986) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Desmoglein 4 (DSG4) (NM_177986) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Desmoglein 4
Synonyms:	CDGF13; CDHF13; HYPT6; LAH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214121 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATTGGCTCTTCTTCAGAAACATTTGCCTTTTGATCATTCTAATGGTGGTGATGGAAGTAAACAGTG  
AATTTATTGTTGAGGTGAAGGAATTTGACATTGAAAATGGCACTACAAAATGGCAAACAGTCAGAAGACA  
AAAGCGGGAGTGGATCAAGTTTGCCGACGCTGTCGAGAAGGAGAGGACAACCTCGAAGAGGAACCCATT  
GCCAAAATTCGATCAGACTGCGAATCGAACCGAAGATAACATACCGGATTTCTGGAGTAGGGATTGATC  
GACCACCATATGGGGTATTCACCATTAATCCTCGCACTGGGAAATTAACATCACTTCAGTGGTAGACAG  
AGAAAATACTCCACTTTTCTTGATCTATTGCCGGCTCTGAATTCACGGGGTGAAGATTTAGAAAAGGCTT  
CTTGAGCTTAGAGTCAAAGTTATGGACATAAATGATAACGCTCCAGTCTTTTCGCAAAGTGTATACACAG  
CCAGCATTGAAGAAAATAGTGATGCCAATACATTGGTAGTAAAGTTATGTGCCACAGATGCAGATGAAGA  
AAATCATCTGAATTCTAAAATGCCTACAAGATCGTCTCTCAGGAGCCATCAGGTGCACCCATGTTTCATT  
CTGAATAGGTACTGGAGAAGTCTGCACCATGTCAGTTTCTTGACAGAGAGCAACACAGTATGTACA  
ACCTGGTTGTGAGAGGCTCAGATCGGGATGGAGCTGCAGATGGACTGTCTTCTGAGTGTGACTGTAGAAT  
CAAGTTTTAGACGTCAACGATAATTTCCACCTTAGAGAAAATTCATACTCAGCCAGTATTGAAGAG  
AATTTGTTAAGTTCGGAAGTACGATTACAAGCAATTGATCTTGATGAAGAAGCACTGATAACTGGT  
TGGCTCAATATTTAATCTCTCTGGAAATGATGGGAATTGGTTTCGATATTCAAACAGATCCACAAACCAA  
TGAAGGCATTTTGAAGTTGTCAAGATGCTGGATTATGAACAAGCACCTAACATTCAGCTTAGTATCGGA  
GTTAAAAACCAAGCTGATTTTCACTACTCCGTTGCTTCTCAATTCAAAATGCACCAACCCCTGTGAGAA  
TTCAAGTTGTTGATGTGAGAGAAGGACCTGCATTTTCATCCAAGTACTATGGCTTTTAGTGTGCGGGAAGG  
AATAAAAGGAAGTTCCTTATTGAATTATGTGCTTGGCACAATACAGCCATAGATTTGGACACAGGAAAC  
CCTGCAACAGATGTCAGATATATCATAGGGCATGATGCAGGCAGCTGGTAAAAATTGATTCAAGAAGT  
GTGAGATACAATTTCTAGAGAATTTGATAAGAAGTCAAAATATATTATCAATGGGATATACACAGCAGA  
GATCCTGGCTATAGATGATGGCTCTGAAAAACAGCTACAGGAACCATATGTATTGAGGTTCTGATATC



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AATGATTATTGTCCAAACATTTTCTGAAAGAAGAACCATCTGCATTGACTCTCCATCAGTCCTTATCT  
 CTGTTAATGAACATTCTTATGGGTCTCCGTTTACTTTCTGTGTTGTTGATGAGCCACCAGGAATAGCTGA  
 CATGTGGGATGTCAGATCAACAAATGCTACCTCGGCAATCCTTACGGCTAAGCAGTTTTATCTCCAGGA  
 TTTTATGAAATCCCAATCCTGGTGAAGGACAGCTATAACAGAGCATGTGAATTGGCACAATGGTGCAGT  
 TATATGCCTGTGATTGCGATGACAACCACATGTGCTGGACTCTGGTCCCGGGGCATCTACACAGAGGA  
 CATAACTGGTGCACGTATGGCCTGTCACTGAAGACCAAGCTGGAGTTTCAAATGTTGGTCTTGGACCA  
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 GCTGCAAAACAGAGACAGCCAGAAGGCCTGGGAACAAGATTTGCTCCTGTGCCTGAGGGCGGAGAAGGAGT  
 GATGCAGTCTTGAGAATTGAAGGGGCCATCCCGAGGACAGGGATGTGTCAAATATATGTGCACCCATG  
 ACAGCCTCAAATACCCAGGATCGGATGGATTCTCTGAAATCTACACCAACACCTATGCAGCCGGGGCA  
 CGGTGGAAGGAGGTGATCGGGAGTGGAGCTCAACACAGGTATGGGGACAGCCGTTGGCCTCATGGCCG  
 AGGGGCCGAGGAGCCTCAGGGCCGCAAGGAAGAGGAGCTCTACCATGGGAACCCTGCGGGACTACGCT  
 GACGCAGACATCAACATGGCTTCTTGGACAGCTACTTCTCGGAGAAAGCGTATGCTTATGCAGATGAAG  
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 AGATTACAACAATGTAATCTATGCTGAGAGAGTACTGGCTAGTCTGGTGTGCCTGACATGAGCAATAGT  
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 TGCAAATGATGAGTCCAGACCTCCCATAGGCCAAACCTTGGCTCCACATCCCCAATGACATCTCGACA  
 CAGAGTAACACGATACAGTAACATACATTACACCCAACAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC214121 protein sequence  
 Red=Cloning site Green=Tags(s)

MDWLFRRNICLLIILMVMEVNSEFIVEVKEFDIENGTTKWQTVRRQKREWIKFAAACREGEDNSKRNP  
 AKIRSDCESNQKITYRISGVGIDRPPYGVFTINPRTGEINITSVVDREITPLFLIYCRALNSRGEDLERP  
 LELRVKVMINDNAPVFSQSIVYASIEENSANTLVVKLCATDADEENHLSKIAYKIVSQEPGAPMFI  
 LNRYTGEVCTMSSFLDREQHSMYNLVVRSRDRGAADGLSSECDCRIKVLVDVNDNFPTLEKTSYSASIEE  
 NCLSSELIRLQAIDLDEEGTDNWLQAQYLILSGNDGNWFDIQDTPQTNEGILKVVKMLDYEQAPNIQLSIG  
 VKNQADFHYSVASQFQMHPPTVRIQVVDVREGPAFHPSTMAFSVREGIKGSSLLNYVLGTYAIDLDTGN  
 PATDVRYIIGHDAGSWLKIDSRTGEIQFSREFDKKSKYIINGIYAEILAIDDGSGKTATGTICIEVPDI  
 NDYCPNIFPERRTICIDSPSVLISVNEHSYGSPTFCVVEPPGIADMWDVRSTNATSAILTAKQVLSPG  
 FYEIPILVKDSYNRACELAQMVQLYACDCDDNHMCLDSGAAGIYTEDITGDTYGPVTEQAGVSNVGLGP  
 AGIGMMVLGILLLLAPLLLLCCCKQRQPEGLTRFAPVPEGGEGVMQSWRIEGAHPEDRDVSNICAPM  
 TASNTQDRMDSSEIYNTYAAGGTVEGGVSGVELNTGMGTAVGLMAAGAAGASGAARKRSSTMGTLRDYA  
 DADINMAFLDSYFSEKAYAYADEDEGRANDCLLIYDHEGVGSPVGSIGCCSWIVDDLDESCMETLDPKF  
 RTLAEICLNTEIEPFPHQACIPISTDLPLLPNYFVNESSGLTPSEVEFQEEMAASEPVVHGDIIIVTET  
 YGNADPCVQPTTIIIFDPQLAPNVVVTEAVMAPVYDIQGNICVPAELADYNNVIYAERVLASPGVPDMSNS  
 STTEGCMGPVMSGNILVGPEIQVMQMMSPDLPIGQTVGSTSPMTRSRRVTRYNSNIHYTQQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6607\\_g07.zip](https://cdn.origene.com/chromatograms/mk6607_g07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_177986

**ORF Size:** 3120 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
  5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_177986.5](#)

**RefSeq Size:** 3580 bp

**RefSeq ORF:** 3123 bp

**Locus ID:** 147409

**UniProt ID:** [Q86S16](#)

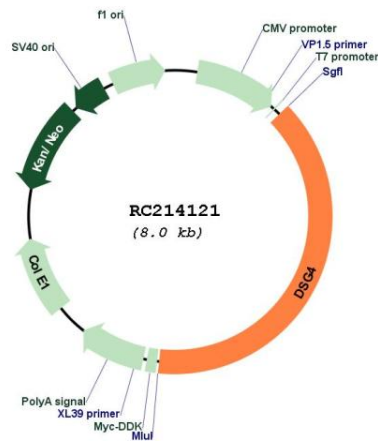
**Cytogenetics:** 18q12.1

**Protein Families:** Transmembrane

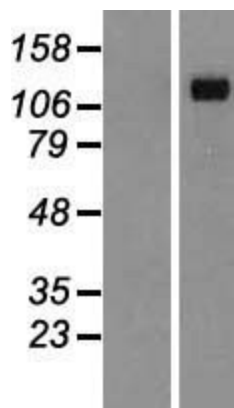
**MW:** 113.8 kDa

**Gene Summary:** This gene encodes a member of the desmoglein subgroup of desmosomal cadherins. The encoded preproprotein is proteolytically processed to generate the mature protein. This protein is a transmembrane component of desmosomes and may play a role in cell-cell adhesion in epithelial cells. Mutations in the gene are associated with localized autosomal recessive hypotrichosis and monilethrix, characterized by impaired hair growth. [provided by RefSeq, May 2016]

**Product images:**



Circular map for RC214121



Western blot validation of overexpression lysate (Cat# [LY406073]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214121 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).