

Product datasheet for RC209820

Claudin 12 (CLDN12) (NM_012129) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Claudin 12 (CLDN12) (NM_012129) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Claudin 12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209820 representing NM_012129 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCTGTGGGATGTCCACGCAGCCACAGTCCTTTCCTTCTGTGGAATCGCCTCAGTAGCAGGCC
TCTTTCAGGGACTCTGCTTCCCAACTGGAGAAAATTACGATTGATCACATTCAACAGAAACGAGAAGAA
CCTGACTGTTTACACAGGCCTGTGGGTGAAATGTGCCGGTATGACGGGAGCAGTGACTGCCTGATGTAC
GACACTACTTGGTACTCATCAGTTGACCAGCTGGACCTGCGTGTCTCCAGTTTGCCTACCCCTCAGCA
TGCTGATCGCCATGGGTGCCCTGTCTGCTGCTGATTGGAATGTGCAACTGCCTTCAGTCCCTCGGT
GCCAACATCAAAGTGGCAAGTGTCTGGTCAATAGTGCAGTTGCCACCTGGTGGCTGGGCTGCTATTT
TTCTGGCAGGTAAGTGTGAGCCTCTCCCATCTATCTGGGTCATCTTTTATAACATCCATCTGAACAAGA
AGTTTGAGCCAGTCTTTTCATTTGACTATGCAGTGTATGTCACTATTGCTAGTGTGGGGCCTGTTTAT
GACTTCCCTTATACTATTTATTTGGTATTGTACATGCAAATCTTGCCTTCTCCTTCTGGCAACCATTG
TACTCCCATCCACCCAGTATGCATACTTACTCACAGCCCTATTCAGCACGCTCTCGCCTCTGCCATTG
AAATTGACATTCCAGTAGTTTCACACCACT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209820 representing NM_012129
 Red=Cloning site Green=Tags(s)

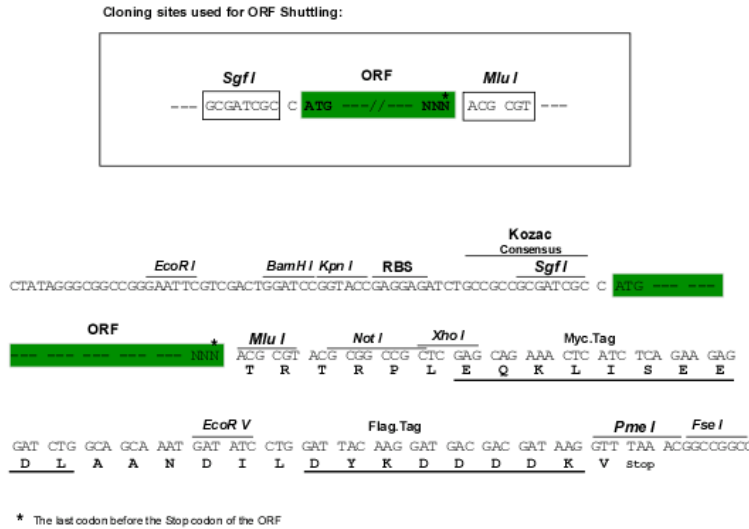
MGCRDVAATVLSFLCGIASVAGLFAGTLLPNWRKLRLLITFNRNEKNLTVYTGLVWKARYDGSDDCLMY
 DTTWYSSVDQLDLRVLQFALPLSMLIAMGALLLCLIGMCNTAFRSSVPNIKAKLCLVNSAGCHLVAGLLF
 FLAGTVSLSPSIWVIFYNIHLNKKFEPVFSFDYAVYVTIASAGGLFMTSLILFIWYCTCKSLPSPFWQPL
 YSHPPSMHTYSQPYSARSRLSAIEIDIPVVSHTT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4242_b06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012129

ORF Size: 732 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_012129.5](#)

RefSeq Size: 3493 bp

RefSeq ORF: 735 bp

Locus ID: 9069

UniProt ID: [P56749](#)

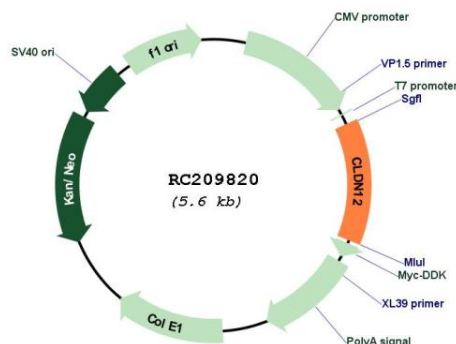
Cytogenetics: 7q21.13

Protein Families: Transmembrane

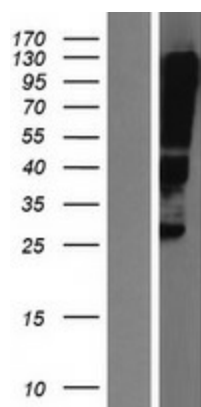
MW: 26.9 kDa

Gene Summary: This gene encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. This gene is expressed in the inner ear and bladder epithelium, and it is over-expressed in colorectal carcinomas. This protein and claudin 2 are critical for vitamin D-dependent Ca²⁺ absorption between enterocytes. Multiple alternatively spliced transcript variants encoding the same protein have been found.[provided by RefSeq, Sep 2011]

Product images:



Circular map for RC209820



Western blot validation of overexpression lysate (Cat# [LY415956]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209820 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).