

Product datasheet for **RC204882**

Claudin 3 (CLDN3) (NM_001306) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Tag: Myc-DDK
Symbol: Claudin 3
Synonyms: C7orf1; CPE-R2; CPETR2; HRVP1; RVP1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC204882 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGGATCGCC**

ATGTCCATGGGCCTGGAGATCACGGGCACCGCGCTGGCCGTGCTGGGCTGGCTGGGCACCATCGTGTGCT
 GCGCGTTGCCCATGTGGCGCGTGTGGCCCTTCATCGGCAGCAACATCATCAGTCGCAGAACATCTGGGA
 GGGCCTGTGGATGAAGTGCCTGGTGCAGAGCACCAGGCGCAGATGCAGTGAAGGTGTACGACTCGCTGCTG
 GCACTGCCACAGGACCTTCAGGCGGCCCGCGCCCTCATCGTGGTGGCCATCCTGCTGGCCGCTTCGGGC
 TGCTAGTGGCGCTGGTGGGCGCCAGTGCACCACTGCGTGCAGGACGACACGGCCAAGGCCAAGATCAC
 CATCGTGGCAGGCGTGTGTTCTTCTCGCCGCCCTGCTCACCTCGTGGCGGTGTCTGTGGTGGCCAAAC
 ACCATTATCCGGGACTTCTACAACCCCGTGGTGGCCGAGGCGCAGAACGCGAGATGGGCGCGGGCCTGT
 ACGTGGGCTGGGCGGCCGCGCGCTGCAGTGTGGGGGGCGCGCTGCTGTGCTGCTGTCCCCACG
 CGAGAAGAAGTACACGGCCACCAAGGTGCTCTACTCCGCGCCGCGCTCCACCGGCCCGGGAGCCAGCCTG
 GGCACAGGCTACGACCGCAAGGACTACGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGTTTAA

Protein Sequence: >RC204882 protein sequence
 Red=Cloning site Green=Tags(s)

MSMGLEITGTALAVLGWLGITVCCALPMWRVSAFIGSNIITSQNIWEGLWMNCVVQSTGQMCKVYDSSL
 ALPQDLQAARALIVVAILLAFAFGLLVALVGAQCTNCVQDDTAKAKITIVAGVLFLLAALLTLPVSWSAN
 TIIRDFYNPVVPEAQKREMGAGLYVGWAAAALQLLGALLCCSCPPREKKYTATKVVYSAPRSTGPGASL
 GTGYDRKDYY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Chromatograms: https://cdn.origene.com/chromatograms/mk6063_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001306

ORF Size: 660 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001306.4](#)

RefSeq Size: 1318 bp

RefSeq ORF: 663 bp

Locus ID: 1365

UniProt ID: [O15551](#)

Cytogenetics: 7q11.23

Domains: PMP22_Claudin

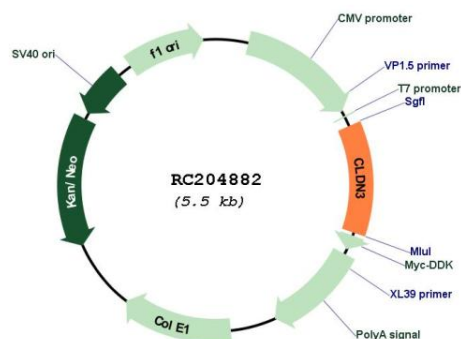
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Cell adhesion molecules (CAMs), Leukocyte transendothelial migration, Tight junction

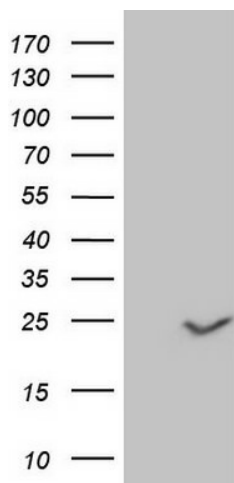
MW: 23.3 kDa

Gene Summary: Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell sheets, forming continuous seals around cells and serving as a physical barrier to prevent solutes and water from passing freely through the paracellular space. These junctions are comprised of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet. The protein encoded by this intronless gene, a member of the claudin family, is an integral membrane protein and a component of tight junction strands. It is also a low-affinity receptor for Clostridium perfringens enterotoxin, and shares aa sequence similarity with a putative apoptosis-related protein found in rat. [provided by RefSeq, Jul 2008]

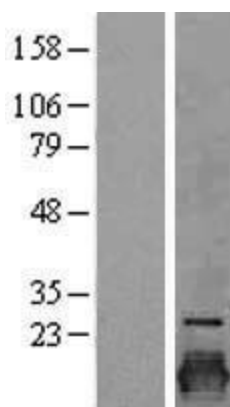
Product images:



Circular map for RC204882



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CLDN3 (Cat# RC204882, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CLDN3 (Cat# [TA806232]). Positive lysates [LY420014] (100ug) and [LC420014] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY420014]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204882 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).