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Product datasheet for RC200490

Claudin 4 (CLDN4) (NM_001305) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Claudin 4 (CLDN4) (NM_001305) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Claudin 4
Synonyms:	CPE-R; CPER; CPETR; CPETR1; hCPE-R; WBSCR8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200490 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCTCCATGGGGCTACAGGTAATGGGCATCGCGCTGGCCGTCCTGGGCTGGCTGGCCGTCATGCTGT
GCTGCGCGCTGCCCATGTGGCGCGTGACGGCCTTCATCGGCAGCAACATTGTCACCTCGCAGACCATCTG
GGAGGGCCTATGGATGAACTGCGTGGTGCAGAGCACCGGCCAGATGCAGTGCAAGGTGTACGACTCGCTG
CTGGCACTGCCGCAGGACCTGCAGGCGGCCCGCGCCCTCGTCATCATCAGCATCATCGTGGCTGCTCTGG
GCGTGCTGCTGTCCGTGGTGGGGGGCAAGTGTACCAACTGCCTGGAGGATGAAAGCGCCAAGGCCAAGAC
CATGATCGTGGCGGGCGTGGTGTTCCTGTTGGCCGGCCTTATGGTGATAGTGCCGGTGTCCTGGACGGCC
CACAACATCATCCAAGACTTCTACAATCCGCTGGTGGCCTCCGGGCAGAAGCGGGAGATGGGTGCCTCGC
TCTACGTCGGCTGGGCCGCCTCCGGCCTGCTGCTCCTTGGCGGGGGGCTGCTTTGCTGCAACTGTCCACC
CCGCACAGACAAGCCTTACTCCGCCAAGTATTCTGCTGCCCGCTCTGCTGCTGCCAGCAACTACGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200490 protein sequence
Red=Cloning site Green=Tags(s)

MASMGLQVMGIALAVLGWLAVMLCCALPMWRVTAFIGSNIVTSQTIWEGLWMNCVVQSTGQMQCKVYDSL
LALPQDLQAARALVIISIIVAALGVLLSVVGGKCTNCLEDESAKAKTMIVAGVVFLLAGLMVIVPVSWTA
HNIIQDFYNPLVASGQKREMGASLYVGWAASGLLLLGGGLLCCNCPPRTDKPYSAKYSAARSAAASNYV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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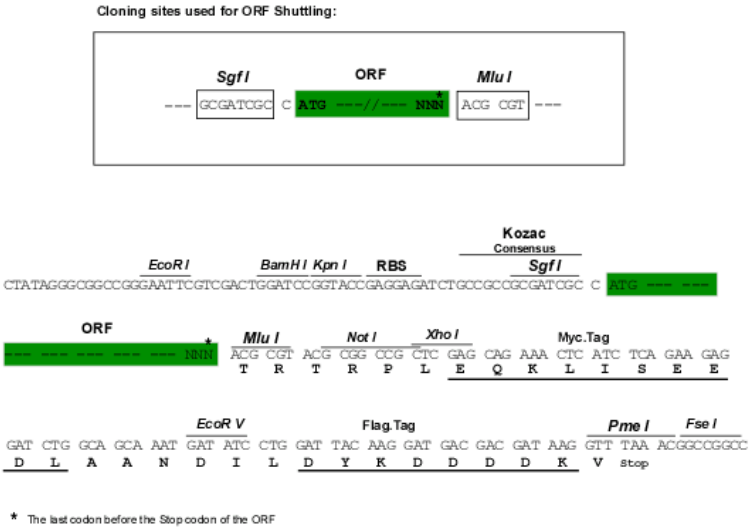
Chromatograms: https://cdn.origene.com/chromatograms/mk6125_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001305

ORF Size: 627 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.

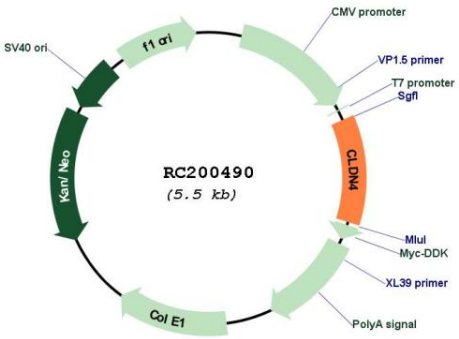
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

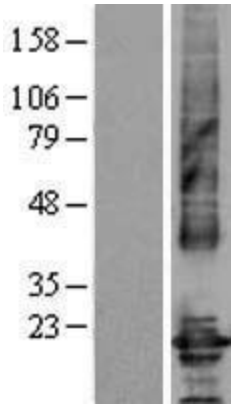
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_001305.5
RefSeq Size:	1859 bp
RefSeq ORF:	630 bp
Locus ID:	1364
UniProt ID:	O14493
Cytogenetics:	7q11.23
Domains:	PMP22_Claudin
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs), Leukocyte transendothelial migration, Tight junction
MW:	22.1 kDa
Gene Summary:	The protein encoded by this intronless gene belongs to the claudin family. Claudins are integral membrane proteins that are components of the epithelial cell tight junctions, which regulate movement of solutes and ions through the paracellular space. This protein is a high-affinity receptor for Clostridium perfringens enterotoxin (CPE) and may play a role in internal organ development and function during pre- and postnatal life. This gene is deleted in Williams-Beuren syndrome, a neurodevelopmental disorder affecting multiple systems. [provided by RefSeq, Sep 2013]

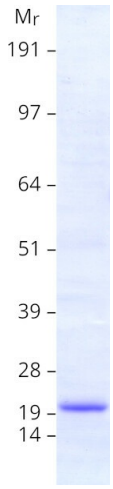
Product images:



Circular map for RC200490



Western blot validation of overexpression lysate (Cat# [LY400521]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200490 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CLDN4 protein (Cat# [TP300490]). The protein was produced from HEK293T cells transfected with CLDN4 cDNA clone (Cat# RC200490) using MegaTran 2.0 (Cat# [TT210002]).