

## Product datasheet for **RC229691**

### Claudin 7 (CLDN7) (NM\_001185022) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Claudin 7 (CLDN7) (NM_001185022) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Claudin 7
Synonyms:	CEPTL2; claudin-1; CLDN-7; CPETL2; Hs.84359
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229691 representing NM_001185022 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAATTCGGGCCTGCAGTTGCTGGGCTTCTCCATGGCCCTGCTGGGCTGGGTGGTCTGGTGGCCT  
GCACCGCCATCCCGCAGTGGCAGATGAGCTCCTATGCGGGTGACAACATCATCACGGCCAGGCCATGTA  
CAAGGGGCTGTGGATGGACTGCGTCACGCAGAGCACGGGGATGATGAGCTGCAAATGTACGACTCGGTG  
CTCGCCCTGTCCGCGCCTTGCAGGCCACTCGAGCCCTAATGGTGGTCTCCCTGGTCTGGGCTTCTCG  
CCATGTTTGTGGCCACGATGGGCATGAAGTGCACGCGCTGTGGGGAGACGACAAAGTGAAGAAGGCCCG  
TATAGCCATGGGTGGAGGCATAATTTTCATCGTGGCAGGTCTTGCCGCCTTGGTAGCTTGCTCCTGGTAT  
GGCCATCAGATTGTCACAGACTTTTATAACCCCTTGATCCCTACCAACATTAAGTATGAGTTTGGCCCTG  
CCATCTTTATTGGCTGGCAGGGTCTGCCCTAGTCATCCTGGGAGGTGCACTGCTCTCCTGTTCTGTGCC  
TGGGAATGAGAGCAAGGCTGGGTACCGTGTACCCCGCTCTTACCCTAAGTCCAACCTTCCAAGGAGTAT  
GTG

**ACGCGT**ACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC229691 representing NM\_001185022  
 Red=Cloning site Green=Tags(s)

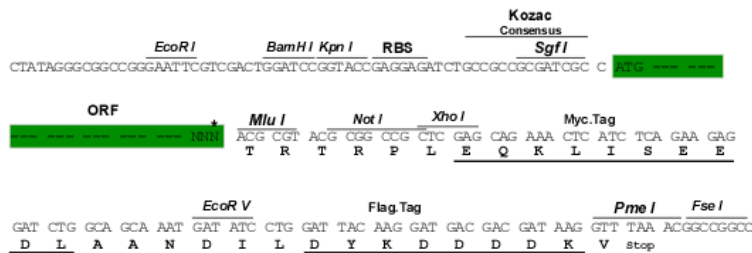
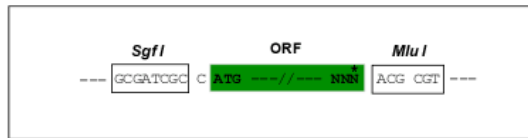
MANSGLQLLGFSMALLGWVGLVACTAIPQWQMSSYAGDNIITAQAMYKGLWDCVTQSTGMMSCMYDSV  
 LALSAALQATRALMVVSLVLGFLAMFVATMGMKCTRCGGDDKVKKARIAMGGGIIFIVAGLAALVACSWY  
 GHQIVTDFYNPLIPTNIKYEFGPAIFIGWAGSALVILGGALLSCSCPGNESKAGYRVPRSPYKSNSSKEY  
 V

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001185022

**ORF Size:** 633 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\\_001185022.1](#), [NP\\_001171951.1](#)

**RefSeq ORF:** 636 bp

**Locus ID:** 1366

**UniProt ID:** [O95471](#)

**Cytogenetics:** 17p13.1

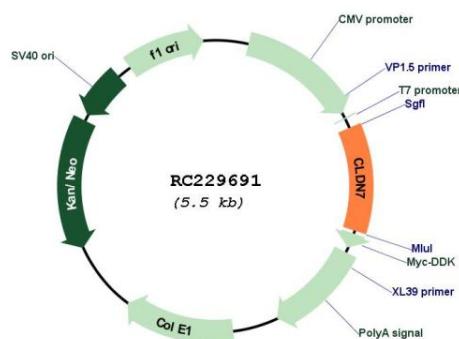
**Protein Families:** Transmembrane

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

**MW:** 22.9 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. Differential expression of this gene has been observed in different types of malignancies, including breast cancer, ovarian cancer, hepatocellular carcinomas, urinary tumors, prostate cancer, lung cancer, head and neck cancers, thyroid carcinomas, etc.. Alternatively spliced transcript variants encoding different isoforms have been found. [provided by RefSeq, May 2010]

## Product images:



Circular map for RC229691