

## **Product datasheet for RC228772**

### OriGene Technologies, Inc.

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## Claudin 14 (CLDN14) (NM 001146077) Human Tagged ORF Clone

#### **Product data:**

**Product Type: Expression Plasmids** 

**Product Name:** Claudin 14 (CLDN14) (NM 001146077) Human Tagged ORF Clone

Tag: Myc-DDK Symbol: Claudin 14 DFNB29 Synonyms: **Mammalian Cell** 

Selection:

Neomycin

Vector: pCMV6-Entry (PS100001) E. coli Selection: Kanamycin (25 ug/mL) **ORF Nucleotide** >RC228772 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s) Sequence:

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGCCAGCACGGCCGTGCAGCTTCTGGGCTTCCTGCTCAGCTTCCTGGGCATGGTGGGCACGTTGATCA CCACCATCCTGCCGCACTGGCGGAGGACAGCGCACGTGGGCACCAACATCCTCACGGCCGTGTCCTACCT GAAAGGGCTCTGGATGGAGTGTGTGGCACAGCACAGGCATCTACCAGTGCCAGATCTACCGATCCCTG CCTGCGCCTGCGCCGTCATCGGGATGAAGTGCACGCGCTGCGCCAAGGGCACACCCGCCAAGACCACCTT TGCCATCCTCGGCGGCACCCTCTTCATCCTGGCCGGCCTCCTGTGCATGGTGGCCGTCTCCTGGACCACC AACGACGTGGTGCAGAACTTCTACAACCCGCTGCTGCCCAGCGGCATGAAGTTTGAGATTGGCCAGGCCC TGTACCTGGGCTTCATCTCCTCGTCCCTCTCGCTCATTGGTGGCACCCTGCTTTGCCTGTCCTGCCAGGA CGAGGCACCCTACAGGCCCTACCAGGCCCCGCCCAGGGCCACCACGACCACTGCAAACACCGCACCTGCC TACCAGCCACCAGCTGCCTACAAAGACAATCGGGCCCCCTCAGTGACCTCGGCCACGCACAGCGGGTACA **GGCTGAACGACTACGTG** 

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA





**Protein Sequence:** >RC228772 protein sequence

Red=Cloning site Green=Tags(s)

MASTAVQLLGFLLSFLGMVGTLITTILPHWRRTAHVGTNILTAVSYLKGLWMECVWHSTGIYQCQIYRSL LALPQDLQAARALMVISCLLSGIACACAVIGMKCTRCAKGTPAKTTFAILGGTLFILAGLLCMVAVSWTT NDVVQNFYNPLLPSGMKFEIGQALYLGFISSSLSLIGGTLLCLSCQDEAPYRPYQAPPRATTTTANTAPA YQPPAAYKDNRAPSVTSATHSGYRLNDYV

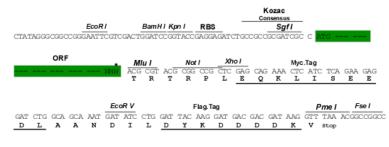
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: <a href="https://cdn.origene.com/chromatograms/mk8074">https://cdn.origene.com/chromatograms/mk8074</a> g07.zip

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_001146077

ORF Size: 717 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: <u>NM 001146077.1</u>, <u>NP 001139549.1</u>

 RefSeq Size:
 1469 bp

 RefSeq ORF:
 720 bp

 Locus ID:
 23562

 UniProt ID:
 095500

 Cytogenetics:
 21q22.13

**Protein Families:** Druggable Genome, Transmembrane

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

MW: 25.7 kDa

**Gene Summary:** Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell

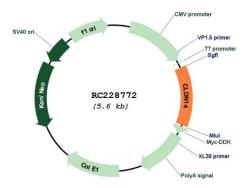
sheets, forming continuous seals around cells and serving as a physical barrier to prevent solutes and water from passing freely through the paracellular space. These junctions are comprised of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet. The protein encoded by this gene, a member of the claudin family, is an integral membrane protein and a component of tight junction strands. The encoded protein also binds

specifically to the WW domain of Yes-associated protein. Defects in this gene are the cause of an autosomal recessive form of nonsyndromic sensorineural deafness. It is also reported that four synonymous variants in this gene are associated with kidney stones and reduced bone mineral density. Several transcript variants encoding the same protein have been found for

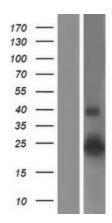
this gene. [provided by RefSeq, Jun 2010]



# **Product images:**



Circular map for RC228772



Western blot validation of overexpression lysate (Cat# [LY431801]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228773] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).