

## Product datasheet for **RG227458**

### CD299 (CLEC4M) (NM\_001144909) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | CD299 (CLEC4M) (NM_001144909) Human Tagged ORF Clone               |
| Tag:                      | TurboGFP   |
| Symbol:                   | CLEC4M   |
| Synonyms:                 | CD209L; CD299; DC-SIGN2; DC-SIGNR; DCSIGNR; HP10347; L-SIGN; LSIGN |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)  |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |



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**ORF Nucleotide Sequence:**

>RG227458 ORF sequence, **codon optimized**.  
 Due to the complexity of NM\_001144909, the ORF clone is codon optimized for mammalian Expression.  
 The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

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

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGTGACTCTAAAGAGCCAGAGTGCAACAGTTGGGCCTTCTTGAGGAGGACCAACCACCAGCGGGA  
 TTAGACTTTTCCAAGGGATTTTCAGTTTCAGCAGATCCATGGACATAAGAGCTCAACGGGATGCCTTGG  
 TCACGGCGCTCTGTCTCCAAGTCTGTCTTTTATGCTGCTGGCGGGCGTCTCGTGGCCATTCTTGT  
 CAAGTTTCTAAAGTGCCTTCATCACTGTCTCAGGAGCAGTCAGAGCAGGACGCTATCTATCAAAACCTTA  
 CCCAGTTGAAAGCCGCTGTTGGAGAAGTGTCCGAAAAGTCCAAGTTGCAGGAGATCTATCAGGAGCTCAC  
 ACAGCTGAAAGCTGCTGTTGGCGAGCTCCCGAGAAAAGCAAGCTCCAAGAGATTATCAGGAGCTGACA  
 AGGCTGAAGGCTGCAGTGGGAGAGCTGCCAGAGAAAAGTAAAGTTGCAGGAGATTTATCAAGAACTGACTA  
 GGCTTAAAGCCGCTGTCCGCGAGCTGCCTGAGAAGAGCAAATTGCAGGAAATTTACCAAGAACTTACACA  
 GCTTAAAGCTGCAGTCGGCGAAGTCCCGGACAGTCCAACAGCAACAGATTTACCAGGAATTGACTGAC  
 CTGAAAACCGCCTTCGAAAGGCTGTGCAGACATTGCCAAAGGATTGGACTTTCTCCAGGAAATTTGTT  
 ATTTTCATGAGTAATAGTCAGAGAAATTTGGCAGCATTTCAGTGACGGCCTGTCAGGAAGTTAGGGCGCAGCT  
 TGTGGTTATTAACCGCCGAGGAGCAGAAGTTCCTGCAGCTGCAGACTAGTCGGTCCAACAGATTCAGT  
 TGGATGGGCTTGAGCGATCTCAACCAGGAGGGCACTTGGCAGTGGGTGGACGGGAGCCCTTGAGTCCGT  
 CATTTCAGAGATATTGGAATTCTGGGGAGCCGAATAACAGCGGCAACGAGGATTGCGCCGAGTTCTCTGG  
 CAGCGGTGGAACGACAATCGCTGCGACGTGGACAAGTATTGGATTTGTAAGAAGCCCGCCGCTGTTTT  
 AGAGATGAA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG227458 representing NM\_001144909  
 Red=Cloning site Green=Tags(s)

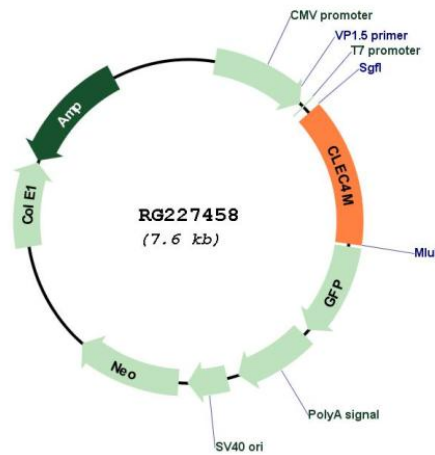
MSDSKEPRVQQLGLLEEDPTTSGIRLFPRDFQFQQIHGHKSSTGCLGHGALVQLLSFMLLAGVLVAILV  
 QVSKVPSSLSEQSEQDAIYQNLTLKAAVGELSEKSKLQEIYQELTLKAAVGELPEKSKLQEIYQELT  
 RLKAAVGELPEKSKLQEIYQELTRLKAAVGELPEKSKLQEIYQELTLKAAVGELPDQSKQQIYQELTD  
 LKTAFERLCRHCPKDWTFQGNCFMNSQRNWHDSVTACQEVRAQLVVIKTAEEQNFLQLQTSRNSRFS  
 WMGLSDLNQEGTWQWVDGSPLSPSFQRYWNSGEPNNSGNEDCAEFSGSGWVNDNRCDVDNYWICKKPAACF  
 RDE

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001144909

**ORF Size:** 1059 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.

|                               |   |
|-------------------------------|---|
| <b>Components:</b>            | 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).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>RefSeq:</b>                | <u>NM_001144909.1, NP_001138381.1</u>   |
| <b>RefSeq Size:</b>           | 1838 bp   |
| <b>RefSeq ORF:</b>            | 1062 bp   |
| <b>Locus ID:</b>              | 10332   |
| <b>UniProt ID:</b>            | <u>Q9H2X3</u>   |
| <b>Cytogenetics:</b>          | 19p13.2   |
| <b>Protein Families:</b>      | Druggable Genome, Transmembrane   |
| <b>Gene Summary:</b>          | <p>This gene encodes a C-type lectin that functions in cell adhesion and pathogen recognition. This receptor recognizes a wide range of evolutionarily divergent pathogens with a large impact on public health, including tuberculosis mycobacteria, and viruses including Ebola, hepatitis C, HIV-1, influenza A, West Nile virus and the SARS-CoV acute respiratory syndrome coronavirus. The protein is organized into four distinct domains: a C-terminal carbohydrate recognition domain, a flexible tandem-repeat neck domain of variable length, a transmembrane region and an N-terminal cytoplasmic domain involved in internalization. This gene is closely related in terms of both sequence and function to a neighboring gene, CD209 (Gene ID: 30835), also known as DC-SIGN. The two genes differ in viral recognition and expression patterns, with this gene showing high expression in endothelial cells of the liver, lymph node and placenta. Polymorphisms in the tandem repeat neck domain are associated with resistance to SARS infection. [provided by RefSeq, May 2020]</p> |