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Product datasheet for RG226638

CD299 (CLEC4M) (NM_001144904) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD299 (CLEC4M) (NM_001144904) 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:

>RG226638 ORF sequence, codon optimized.
Due to the complexity of NM_001144904, 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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCGATTCAAAAGAACCCCGGGTGCAGCAACTGGGGCTGCTCGGGTGCCTCGGGCATGGCGCATTGG
TCCTGCAACTCCTGAGTTTTATGTTGCTGGCTGGTGTGCTGGTGGCTATCCTCGTACAGGTAAGCAAAGT
CCCGTCTTCTCTCTCCCAGGAGCAGTCAGAGCAGGATGCTATCTACCAAAATTTGACCCAGCTGAAGGCG
GCCGTCGGAGAGCTTAGCGAGAAGTCTAAACTTCAGGAGATTTATCAAGAACTGACCCAACTCAAAGCCG
CCGTGGGAGAGCTGCCCGAGAAAAGCAAGCTCCAAGAAATTTACCAGGAACTGACGAGGCTTAAGGCTGC
AGTCGGCGAGCTGCCTGAAAAGAGCAAGCTGCAGGAGATCTATCAAGAGTTGACAAGGCTGAAGGCGGCT
GTAGGGGAGCTTCCCGAAAAGTCTAAGCTCCAGGAGATCTATCAGGAACTCACTGAACTCAAAGCCGCTG
TAGGGGAACTCCCCGAGAAAAGTAAGCTTCAGGAAATCTACCAAGAACTCACACAGCTGAAAGCAGCAGT
TGGCGAACTGCCGGACCAGTCCAAACAGCAGCAGATCTACCAGGAATTGACTGACCTCAAAACAGCCTTC
GAACGCCTGTGCCGGCACTGCCCCAAAGATTGGACTTTCTTCCAAGGCAACTGCTATTTTATGTCTAATA
GCCAGCGCAACTGGCACGACTCCGTGACCGCATGTCAGGAAGTGAGGGCGCAGCTCGTGGTGATCAAAAC
CGCCGAGGAACAGAACTTCCTCCAACTGCAAACTTCAAGAAGCAATCGCTTCAGCTGGATGGGGCTGTCC
GATTTGAATCAGGAGGGGACCTGGCAGTGGGTCGACGGCTCTCCGCTGTCTCCATCTTTCCAGCGCTATT
GGAACTCTGGAGAACCCAACAACTCCGGCAATGAGGACTGTGCTGAATTTAGTGGGAGTGGTTGGAATGA
TAATAGGTGTGACGTGGATAACTACTGGATTTGCAAAAAACCGGCAGCCTGCTTCAGGGACGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG226638 representing NM_001144904
Red=Cloning site Green=Tags(s)

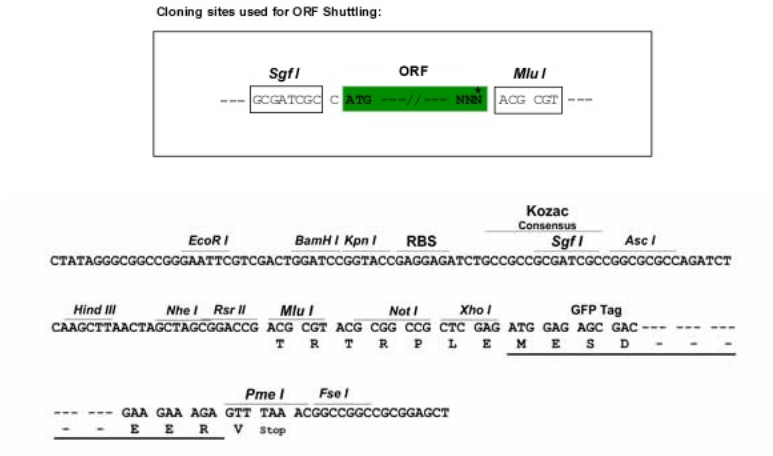
MSDSKEPRVQQLGLLGCLGHGALVLQLLSFMLLAGVLVAILVQVSKVPSSLSQEQSEQDAIYQNLTQLKA
AVGELSEKSKLQEIYQELTQLKAAVGELPEKSKLQEIYQELTRLKAAVGELPEKSKLQEIYQELTRLKAA
VGELPEKSKLQEIYQELTELKAAVGELPEKSKLQEIYQELTQLKAAVGELPDQSKQQQIYQELTDLKTAF
ERLCRHCPKDWTFFQGNCYFMSNSQRNWHDSVTACQEVRAQLVVIKTAEEQNFLQLQTSRSNRFSWMGLS
DLNQEGTWQWVDGSPLSPSFQRYWNSGEPNNSGNEDCAEFSGSGWNDNRCDVDNYWICKKPAACFRDE

TRTRPLE - GFP Tag - V

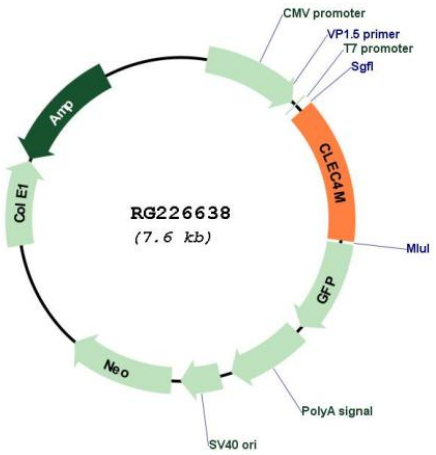
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001144904

ORF Size: 1044 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_001144904.1, NP_001138376.1
RefSeq Size:	1799 bp
RefSeq ORF:	1047 bp
Locus ID:	10332
Cytogenetics:	19p13.2
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	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]