

## Product datasheet for MR202353L4

### Clec4e (NM\_019948) Mouse Tagged Lenti ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Clec4e (NM_019948) Mouse Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	Clec4e
Synonyms:	C86253; Clecsf9; Mincle
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR202353).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

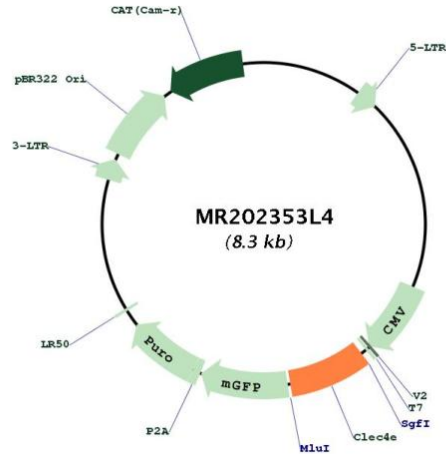
Cloning sites used for ORF Shuttling:



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



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**Plasmid Map:**


**ACCN:** NM\_019948

**ORF Size:** 645 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\\_019948.2](#), [NP\\_064332.1](#)

**RefSeq Size:** 2519 bp

**RefSeq ORF:** 645 bp

Locus ID: 56619

UniProt ID: [Q9R0Q8](#)

Cytogenetics: 6 58.35 cM

**Gene Summary:** A calcium-dependent lectin that acts as a pattern recognition receptor of the innate immune system. Recognizes damage-associated molecular patterns (DAMPs) of abnormal self and pathogen-associated molecular patterns (PAMPs) of bacteria and fungi (PubMed:18509109, PubMed:19171887, PubMed:23602766, PubMed:18776906). The PAMPs notably include mycobacterial trehalose 6,6'-dimycolate (TDM), a cell wall glycolipid with potent adjuvant immunomodulatory functions (PubMed:23602766). Interacts with signaling adapter Fc receptor gamma chain/FCER1G to form a functional complex in myeloid cells (PubMed:23602766, PubMed:18776906). Binding of mycobacterial trehalose 6,6'-dimycolate (TDM) to this receptor complex leads to phosphorylation of the immunoreceptor tyrosine-based activation motif (ITAM) of FCER1G, triggering activation of SYK, CARD9 and NF-kappa-B, consequently driving maturation of antigen-presenting cells and shaping antigen-specific priming of T-cells toward effector T-helper 1 and T-helper 17 cell subtypes (PubMed:23602766). Specifically recognizes alpha-mannose residues on pathogenic fungi of the genus *Malassezia* and mediates macrophage activation (PubMed:19171887). Through recognition of DAMPs released upon nonhomeostatic cell death, enables immune sensing of damaged self and promotes inflammatory cell infiltration into the damaged tissue (PubMed:18776906).[UniProtKB/Swiss-Prot Function]