

## Product datasheet for **MR209127**

### Alcam (NM\_009655) Mouse Tagged ORF Clone

#### Product data:

|                           |                                           |
|---------------------------|-------------------------------------------|
| Product Type:             | Expression Plasmids                       |
| Tag:                      | Myc-DDK                                   |
| Symbol:                   | Alcam                                     |
| Synonyms:                 | AI853494; BEN; CD166; DM-GRASP; MuSC; SC1 |
| Mammalian Cell Selection: | Neomycin                                  |
| Vector:                   | pCMV6-Entry (PS100001)                    |
| E. coli Selection:        | Kanamycin (25 ug/mL)                      |



**ORF Nucleotide Sequence:** >MR209127 representing NM\_009655  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCATCTAAGGTGTCCCTTCTTGCCGTCTGGTTTTCTGCCTCTTGATCTCCGCCGCGGTCTCAGAC  
 CAGGCCCTTGGATGGTACACTGTCAACTCAGCATATGGAGACACCATTGTCATGCCTTGCCGTCTCGATGT  
 ACCTCAGAACCTCATGTTTGGCAAAATGAAATATGAAAAGCCCGATGGGTCCCAAGTATTTATTGCATT  
 CGATCTTCTACGAAGAAAGTGTGCAGTATGATGATGTCCAGAGTACAAGGACAGACTGAGCCTCTCAG  
 AAAACTACACTTTGTCTATCGCCAATGCTAAGATCAGTGATGAGAAGAGATTGTGTGCATGCTAGTGAC  
 CGAGGACAATGTGTTTGAAGCACCTACCCTAGTCAAGGTGTTCAAGCAACCCTAAACCTGAAATTGTA  
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 TTCATGTTTTACTTACCAGGACAGCCTGAAGGCATAAGAAGCTCAACACTTACACACTGACAGATGTGA  
 GACGCAATGCCACAGGGGACTACAAATGCTCACTCATTGACAAAAGGAACATGGCGGCTTCAACGCCAT  
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 CCTGTGTCTGCACAATATCTGCAAGTAGGAACGCGACTGTGGTGGTGAAGGATAACATCCGGCTCC  
 GGTCCAGCCCTTCTTTCCAGTCTTATTATCAGGATGCTGGGAATATGTCTGTGAAACTGCTCTTCA  
 GGAGGTTGAGGGACTGAAGAAAAGGGAGTCTGACCCCTATTGTAGAAGGGAAACCTCAAAATCAAAATG  
 ACTAAGAAAAGTGAACCCAGTGGACTGTCTAAAAGTATAATCTGCCACGTGGAAGGGTTTCCAAAGCCAG  
 CTATACATTGGACCATACCGGAGTGGGAGCGTCATAAACCAACAGAGGAGTCTCCTTATATTAATGG  
 CAGGTATTATAGTAAATTTATCTTCCCTGAGGAGAATGTAACATTAAGTTCACAGCAGAAAAACCA  
 CTGGAGAGAACAGTAACTCCCTGAATGTCTCTGCGATAAGTATTCCAGAGCAGATGAGGCAGACGATA  
 TAAGTGATGAAAACAGAGAAAAGGTGAATGACCAGGCAAACTGATTGTGGGAATTGTCTGTGCTCTCT  
 CCTCGTGCCTCGTTGCTGGTGTCTACTGGCTGTACATGAAGAAGTCCAAAAGTGCATCAAAACAT  
 GTAAACAAGGACCTTGTAATATGGAGGAAAATAAAAAGCTGGAAGAAAACAATCACAAAACAGAAGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209127 representing NM\_009655  
 Red=Cloning site Green=Tags(s)

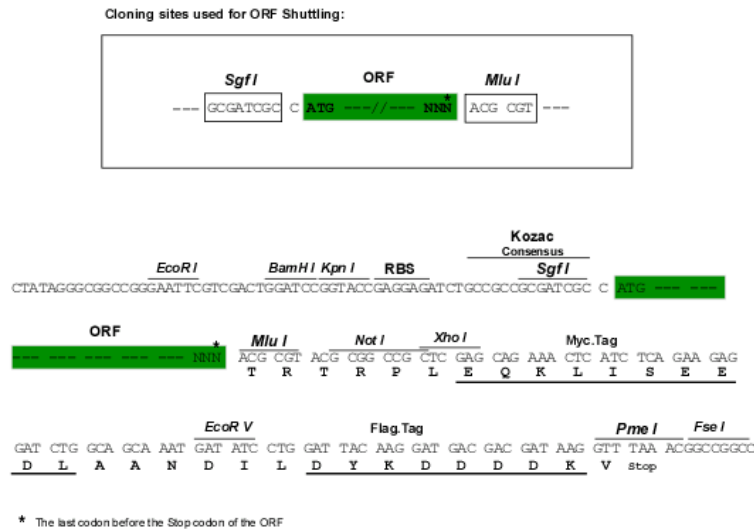
MASKVSPSCRLVFCLLISAAVLRPLGWYTVNSAYGDTIVMPCRLDVPQNLMTGKWKYEKPDGSPVFI  
 RSSTKKSQYDDVPEYKDRLSLSENYTLISANAKISDEKRFVCMVLTEDNVFEAPTLVKVFKQPSKPEIV  
 NKAPFLETDLKKLGDCISRDSYPDNITWYRNGKVLQPVGEVAILFKKEIDPGTQLYTVTSSLEYKTT  
 RSDIQMPFTCSVTYYGPSGQKTIYSEQEIFDIYYPTQVTIQVLPKNAIKEGDNITLQCLGNGNPPPEE  
 FMFYLPQGPEGIRSSNTYTLTDVRRNATGDYKCSLIDKRMAASTTITVHYLDLNLPSGEVTKQIGDTL  
 PVSCTISASRNATVVMKDNIRLRSSPSSSLHYQDAGNYVCETALQEVEGLKKRESLTILIVEGKPKIKM  
 TKKTDPSGLSKTIIICHVEGFPKPAIHWITGSGSVINQTEESPYINGRYYSKIIISPEENVTLTCTAENQ  
 LERTVNSLNVSAISIPEHDEADDISDENREKVNDQAKLIVGIVVGLLLAALVAGVVVWLYMKKSKTASHK  
 VNKDLGNMEENKLENNHKTEA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9014\\_h04.zip](https://cdn.origene.com/chromatograms/mm9014_h04.zip)

**Restriction Sites:** SgfI-MluI

## Cloning Scheme:



ACCN: NM\_009655

ORF Size: 1749 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

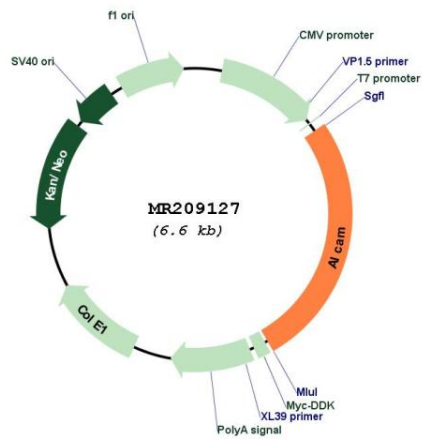
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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).

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>RefSeq:</b>                | <u>NM_009655.3</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>RefSeq Size:</b>           | 4979 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq ORF:</b>            | 1752 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Locus ID:</b>              | 11658                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>UniProt ID:</b>            | <u>Q61490</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Cytogenetics:</b>          | 16 B5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>MW:</b>                    | 65.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Summary:</b>          | <p>Cell adhesion molecule that mediates both heterotypic cell-cell contacts via its interaction with CD6, as well as homotypic cell-cell contacts. Promotes T-cell activation and proliferation via its interactions with CD6 (By similarity). Contributes to the formation and maturation of the immunological synapse via its interactions with CD6 (By similarity). Mediates homotypic interactions with cells that express ALCAM (PubMed:24740813). Mediates attachment of dendritic cells onto endothelial cells via homotypic interaction. Inhibits endothelial cell migration and promotes endothelial tube formation via homotypic interactions (PubMed:23169771). Required for normal organization of the lymph vessel network (PubMed:23169771). Required for normal hematopoietic stem cell engraftment in the bone marrow (PubMed:24740813). Plays a role in hematopoiesis; required for normal numbers of hematopoietic stem cells in bone marrow (PubMed:25730656). Promotes in vitro osteoblast proliferation and differentiation (PubMed:25730656). Promotes neurite extension, axon growth and axon guidance; axons grow preferentially on surfaces that contain ALCAM (By similarity). Mediates outgrowth and pathfinding for retinal ganglion cell axons (PubMed:15345243).</p> <p>[UniProtKB/Swiss-Prot Function]</p> |

Product images:



Circular map for MR209127