

Product datasheet for **MR224472**

Carmil2 (NM_001033320) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carmil2 (NM_001033320) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Carmil2
Synonyms:	CG1399-PB; D130029J02Rik; Gm585; Rltpr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR224472 representing NM_001033320
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCGCTGCCACTGAATGACGTAACCCAGGCTCATCGCAGCCGCCAGAACTCACAACCTCGAGCGGTCC
 ATCAGATCCAAGCCTGTCTCTGGAGGAACAACCAAGTAGACTCTACTTCGGACCTCAAGCCCTGCCTTCA
 GCCCTTAGGTCTGATTTAGACCACTCAGAGCAGGAGGTGAACGAGCTATGCCAGTCAGTACAGGAGCAT
 ATGGAGCTGCTGGGCTGTGGGGCTGGGCCCCAGGGTGAGGTTGCCGTGCACCAGGCTGAGGACGCCATCC
 AGAATGCCAACTTCTCTCAGTATCCTCCCCATTCTCTATGAGGCTGGGAGATCCCCAAGCCACCACTG
 GCAGCTGCAGCAGAAGCTAGAGAGCCTCCTGGGTGAGTGGGCGAGATCTGCCGCCAGGACATCCAGGAC
 TTACTIONCAGACCACCTGGATACCACAAGGAGCCTCTGCCACAGATGTTGCAGACACCTGGCTGGAGGA
 AGCAGCTAGAGGGAGTTCTGGTGGGCTCCGGGGCCCTCCAGAGCTGCTTCCGGAACATCTGCTGCAAGA
 TGCCCTTCTAGGCTGAGGGACATGCGCCTGTCAATCACTGGGACCCTAGCAGAGAGCATTGTGGCTCAG
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 TGGCCCTGCTGTACCACCACTGGGTGGAATGAGCTCAGCCCCCTTGAGACTGGGGATTGGAAGAGCT
 TTTCTTTCCACGGAGAAGGAAGAGGAGAGAGAAAAGGATGAGAGTTCTTATGGAATGGCTTGAGCCT
 AGTAACTGTTTTACCTGGTCTCCTCCCTTATGGTGTGCTGAGGAAGCGGAACGGGACCCCGAGCTGG
 CAGCTCCGGGGGAAGATGCAGAGCCGAGGCTGGGCCGTGACACGGCTCTCCAAGCCCCGCCGCC
 GGGGCCACCCGCCGCCCTCTGCCTCGCATGGACTGCCACCCGCCGGGCAACCCCTACGCCACCAACC
 CGAGCCCGACCGAGACCAGTCCGACGACACCACCACCCGCCGCCGGGGGGCCCGAGGTGCCCCAG
 CCCTGTTCAAGAAGGAAATGGGCTCACTGCTCGCGTGGATGAGGGTGTGGAGGATTCTTCTCAAAAAG
 GCTGATCCAGCAGGATCACTTCTGGGCCCCAGAGGAGGATCCAGCCACTGAGGGTGGTCCACTCCTGTC
 CCCCACACTTCGAAAGAAGCTGGGTACGCTCTTTGCCTTTAAGAAACCTCGTTCAACAAGGGTCCGC
 GACCTGACCTGGAGACCAGCCCTGGAGCAGCAGCTCGAGCCAGAAAATCCACACTTGGGGATCTCCTGCG
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 ATCTTTGAGCAGCGGTACAAGTGATGCTACAGAGGATCGCGTGAGCCGGGCCAGTGGGGTGGCCGAG
 AGCAAGAGGAAGCAAAGTAAAGACGGCGAGATCAAGAAGCAGGCTCTGATGGTGACATTATGGACAGTT
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 TGGGCCAGGAGGCCAGGGCCTGAGTCTGCCACCTGGAAGACATTGGGACAGCAGCTGAATGCAGAGCTC
 AGAGGCCGTGGTTGGGGCCAACAGGATGGTCCAGGGCCCCCTCCCATGTCCCAGCCAAAGTCCCCGAA
 GAACCAGCCCCGCCAGACATCCTGAGTCTCCAGAGGACCCCTGCTTGGGCCCTAGGAATGAAGAACG
 GCCCTCCGGCTGCAGCGCTCCCTGTCTCAAGCGTAGGCCGAAGCTCGAGGCACCCCATCCCCAAGC
 TTAGGCTCTGGCCTTGGATCCAAGCCTTCTCTCCGTACCCACAGAACCCTCCAGCCCTGAGCGGAGCC
 CTCCTCCCCAGCCACAGACAAAGAGGGCGGCCCAACCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR224472 representing NM_001033320
 Red=Cloning site Green=Tags(s)

MPLPLNDVTQAHRSRPELTTRAVHQIQAQLWRNNQVDSTSDLKPCLQPLGLISDHSEQEVNELCQSVQEH
 MELLGCGAGPQGEVAVHQAEDA.IQNANFSL.SILPILYEAGRSPSHHWLQKLESLLGQVGEICRQDIQD
 FTQTLLDTRSLCPQMLQTPGWRKQLEGLVVGSGGLPELLPEHLLQDAF.SRLRDMRLSITGTLAESIVAQ
 ALAGLHAARDRLVERLTQQAPVTMAPAVPPLGGNELSPLETGGLEELFFPTEKEEEREKDESSWKWLEP
 SNCFHLVSSLHGAAEEAERDPELAAPGEDAEPQAGPSARGSPSPAAPGPPAGPLPRMDLPPAGQPLRHPT
 RARPRRQHHHRPPPGPQVPPALLQEGNGLTARVDEGVVEEFFSKRLIQQDHFWAPEEDPATEGGATPV
 PRTLRLKKGTLFAFKKPRSTRGPRPDLETSPGAAARARKSTLGDLLRPPARPGRGEEPPGAEGGTSSDPD
 ARNRPRYTRESKAYSMILLPAEEEEAVGTRPKRRPLERGDTELAPSFQQRVQVMLQRIGVSRASGGAE
 SKRKQSKDGEIKKAGSDGIMDSSTETPPISIKSRTHSVSADPSCRPGGGQGPESATWKTLLGQQLNAEL
 RGRGWQQDGGPPSPCSPSPRRTSPAPDILSLPEDPCLGPRNEERPLRLQRSPVLKRRPKLEAPPSPS
 LSGSLGSKPLPPYPTEPSSPERSPPSPATDQRGGGPNP

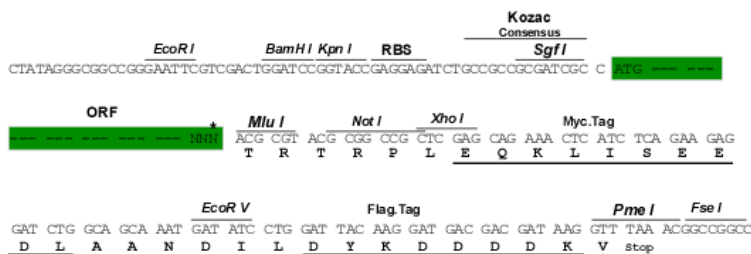
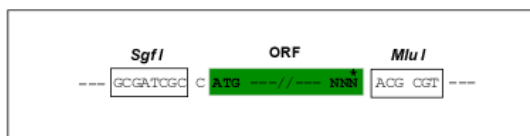
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9049_f04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001033320

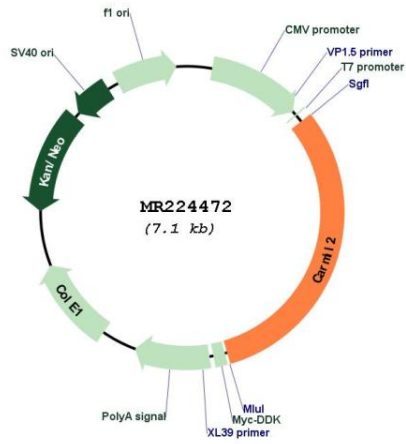
ORF Size: 2214 bp

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:	<ol style="list-style-type: none">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_001033320.2, NP_001028492.1</u>
RefSeq Size:	2504 bp
RefSeq ORF:	2217 bp
Locus ID:	234695
UniProt ID:	<u>Q3V3V9</u>
Cytogenetics:	8 D3
MW:	80.2 kDa
Gene Summary:	Cell membrane-cytoskeleton-associated protein that plays a role in the regulation of actin polymerization at the barbed end of actin filaments. Prevents F-actin heterodimeric capping protein (CP) activity at the leading edges of migrating cells, and hence generates uncapped barbed ends and enhances actin polymerization. Plays a role in cell protrusion formations; involved in cell polarity, lamellipodial assembly, membrane ruffling and macropinosome formations. Involved as well in cell migration and invadopodia formation during wound healing (By similarity). Required for CD28-mediated stimulation of NF-kappa-B signaling, involved in naive T cells activation, maturation into T memory cells, and differentiation into T helper cells (PubMed:27647348). Required for CD28-mediated differentiation of T regulatory cells (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR224472