

Product datasheet for **MG224472**

Carmil2 (NM_001033320) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Carmil2 (NM_001033320) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Carmil2 |
| Synonyms: | CG1399-PB; D130029J02Rik; Gm585; Rltpr |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>MG224472 representing NM_001033320
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCGCTGCCACTGAATGACGTAACCCAGGCTCATCGCAGCCGCCAGAACTCACAACCTCGAGCGGTCC
 ATCAGATCCAAGCCTGTCTCTGGAGGAACAACCAAGTAGACTCTACTTCGGACCTCAAGCCTGCCTTCA
 GCCCTTAGGTCTGATTTAGACCACTCAGAGCAGGAGGTGAACGAGCTATGCCAGTCAGTACAGGAGCAT
 ATGGAGCTGCTGGGCTGTGGGGCTGGGCCCCAGGGTGAGGTTGCCGTGCACCAGGCTGAGGACGCCATCC
 AGAATGCCAACTTCTCTCAGTATCCTCCCCATTCTCTATGAGGCTGGGAGATCCCCAAGCCACCACTG
 GCAGCTGCAGCAGAAGCTAGAGAGCCTCCTGGGTGAGTGGGCGAGATCTGCCGCCAGGACATCCAGGAC
 TTACTIONCAGACCACCTGGATACCACAAGGAGCCTCTGCCACAGATGTTGCAGACACCTGGCTGGAGGA
 AGCAGCTAGAGGGAGTTCTGGTGGGCTCCGGGGCCCTCCAGAGCTGCTTCCGGAACATCTGCTGCAAGA
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 GCTCTTGACAGGTCTTCATGCAGCCCAGATCGACTGGTGGAGAGGCTAACTCAGCAGGCACCAAGTACCA
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 GGGGCCACCCGCCGCCCTCTGCCTCGCATGGACTGCCACCCGCCGGGCAACCCCTACGCCACCCAACC
 CGAGCCCGACCGAGACCAGTCCGACAGCACCACCACCCGCCGCCGGGGGCCCCAGGTGCCCCAG
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 AGCAAGAGGAAGCAAAGTAAAGACGGCGAGATCAAGAAGGCAGGCTCTGATGGTGACATTATGGACAGTT
 CCACAGAGACCCCTCCCATCTCAATCAAGTCCCGTACCCACTCTGTGTCTGCTGATCCCTCATGCAGACC
 TGGGCCAGGAGGCCAGGGCCCTGAGTCTGCCACCTGGAAGACATTGGGACAGCAGCTGAATGCAGAGCTC
 AGAGGCCGTGGTTGGGGCCAACAGGATGGTCCAGGGCCCCCTCCCATGTCCCAGCCCAAGTCCCCGAA
 GAACCAGCCCCGCCAGACATCCTGAGTCTCCAGAGGACCCCTGCTTGGGCCCTAGGAATGAAGAACG
 GCCCTCCGGCTGCAGCGCTCCCTGTCTCAAGCGTAGGCCGAAGCTCGAGGCACCCCATCCCCAAGC
 TTAGGCTCTGGCCTTGGATCCAAGCCTTCTCTCCGTACCCACAGAACCCTCCAGCCCTGAGCGGAGCC
 CTCCTCCCCAGCCACAGACAAAGAGGGCGGCCCAACCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG224472 representing NM_001033320
 Red=Cloning site Green=Tags(s)

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MPLPLNDVTAHRSRPELTTTRAVHQIQAQLWRNNQVDSTSDLKPCLQPLGLISDHSEQEVNELCQSVQEH
MELLGCGAGPQGEVAVHQAEDA IQNANFSL SILPILYEAGRSPSHHWQLQKLESLLGQVGEICRQDIQD
FTQTTLDTRSLCPQMLQTPGWRKQLEGLVVGSGGLPELLPEHLLQDAF SRLRDMRLSITGT LAESIVAQ
ALAGLHAARDRLVERLTQQAPVTMAPAVPPLGGNELSPLETGGLEELFFPTEKEEEREKDESSSWKWLEP
SNCFHLVSSLHGAAEEAERDPELAAPGEDAEPQAGPSARGSPSPAAPGPPAGPLPRMDLPPAGQPLRHPT
RARPRRRQHHRPPPGGPQVPPALLQEGNGLTARVDEGVVEEFFSKRLIQQDHFWAPEEDPATEGGATPV
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ARRNRPRYTRESKAYSMILLPAEEEEAVGTRPDKRRPLERGDTELAPSFQQRVQVMLQRIGVSRASGGAE
SKRKQSKDGEIKKAGSDGIMDSSTETPPISIKSRTHSVSADPSCRPGGGQGPESATWKT LGQQLNAEL
RGRGWGQQDGPSPSPSPRRTSPAPDILSLPEDPCLGPRNEERPLRLQRSPVLKRRPKLEAPPSPS
LGSGLGSKPLPPYPTEPSSPERSPPSPATDQRRGGGPNP
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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_001033320.2](#), [NP_001028492.1](#)

RefSeq Size: 2504 bp

RefSeq ORF: 2217 bp

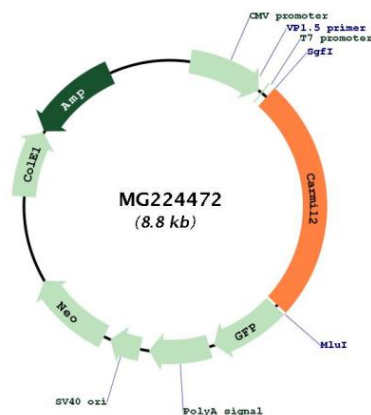
Locus ID: 234695

UniProt ID: [Q3V3V9](#)

Cytogenetics: 8 D3

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 MG224472