

Product datasheet for **RG222961**

CARMIL (CARMIL1) (NM_017640) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CARMIL (CARMIL1) (NM_017640) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CARMIL1
Synonyms:	CARMIL; CARMIL1a; dj501N12.1; dj501N12.5; LRRC16; LRRC16A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222961 representing NM_017640 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

ATGACCGAGGAGACTCTGACGTTCCAGGGAGTTGATAGAAAGCATAAAGGATGTTATTGGCAGAAAGA
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GACAATGGTTTAGAATCTGACCTATCTACCTTAATAGTGTGGCTCAGTAAAAACAGATCAATACAACACC
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG222961 representing NM_017640
 Red=Cloning site Green=Tags(s)

MTEESSDVPRELIESIKDVIGRKIKISVKKKVKLEVKGDKVENKVLVLTSCRAFLVTARIPTKLELTFSY
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 DTCMMTPKSKRKSIIHRMLRPVSRAFEMFDLKDALKEEVPPIHIEDPPFSLRQEKRSSGFISELPSEEGK
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 ERIEEIKTPDSFEESQGEEIGKVERSDSKSSPQAGRRYGVQVMGSGLLAEMKAKQENRFGLGTPEKNTKA
 EPKAEAGSRSSSSSTPTSPKPLLQSPKPSLAARPVIPQKPRASRPDDIPDSSPSPKVALLPPVLKVP
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TRTRPLE - GFP Tag - V

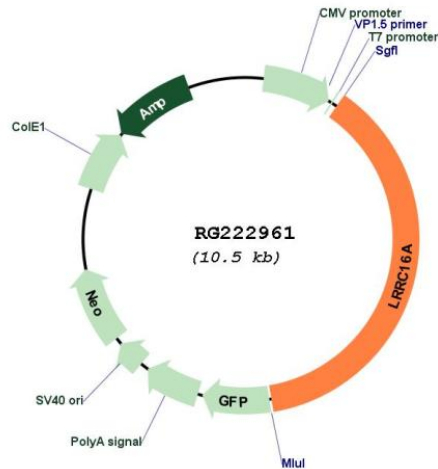
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_017640

ORF Size: 3978 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_017640.4](#), [NP_060110.3](#)

RefSeq Size: 5304 bp

RefSeq ORF: 4116 bp

Locus ID: 55604

UniProt ID: [Q5VZK9](#)

Cytogenetics: 6p22.2

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, however, seems unable to nucleate filaments (PubMed:16054028). Plays a role in lamellipodial protrusion formations and cell migration (PubMed:19846667).[UniProtKB/Swiss-Prot Function]