

Product datasheet for **RG219097**

EFCAB4B (CRACR2A) (NM_032680) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EFCAB4B (CRACR2A) (NM_032680) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EFCAB4B
Synonyms:	EFCAB4B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG219097 representing NM_032680 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGGCTGCCCTGACGGGAGGGTAGTCTCCAGACCCCAGAGACTTGGTCAGGGGTCTGGCCAGGGGCCAA
 AGGGGAGTGGAGCCTGCCTGCATCCCCTGGACAGCCTGGAGCAGAAGGAGACTCAGGAGCAAACGTCGGG
 CCAGCTAGTCATGCTGAGGAAGGCACAGGAGTTCTTTCAGACCTGTGATGCTGAAGGCAAGGGCTTCATC
 GCCAGGAAGGATATGCAGAGGCTGCATAAGGAGCTACCGCTCAGCCTGGAGGAAGTGGAGGATGTGTTTG
 ATGCCCTGGATGCTGATGGCAATGGCTATCTGACCCACAGGAGTTCACTACTGGATTTAGTCACCTTCTT
 CTTTCAGCCAGAATAACCCAAGTCAGGAAGATGCAGGTGAACAGGTGGCCAGCGCCATGAAGAGAAGGTG
 TATCTGTCCAGAGGGGATGAGGATCTGGGCGACATGGGCGAAGATGAGGAAGCCAGTTCGGGATGCTGA
 TGGACAGACTTGGAGCCCAAAAGGTGTTGGAAGATGAAAGTGATGTCAAGCAGCTCTGGTTGCAGCTGAA
 GAAGGAGGAACCTCATTTACTGTCCAACCTTGAAGACTTCTGACCAGAAATCATCTCCAGCTCCAAGAA
 GCCCATGAGGAGAAGAATGAACTGGAGTGTGCCCTAAAAAGGAAAATTGCTGCTTATGATGAAGAAATCC
 AGCATCTCTATGAGGAGATGGAACAACAAATCAAAAGTGAGAAGGAGCAGTTTCTCTGAAGGACACAGA
 GAGGTTTCAAGCCCGCAGTCAAGAGCTGGAGCAGAAACTGTTATGTAAGGAGCAGGAGCTGGAGCAGCTC
 ACCCAGAAGCAGAAAAGGCTGGAAGGTCAAGTGCACAGCCCTGCATCATGACAAGCATGAGACCAAGGCTG
 AGAATACCAAGCTGAACTCACTAACCAGGAGCTGGCCCGGAGCTGGAGCGGACTTCTGGGAGCTCCA
 GGATGCTCAGCAGAGTTGGAAGCCTCCAGCAAGAGGCTGCAAACTCCACCAAGAGAAGGAGATGGAA
 GTGTACCGTGTGACGGAGAGTCTACAGCGTGAGAAGGCCGGGCTCCTCAAGCAGCTGGATTTCTAAGGT
 GCGTCGGTGGGCACTGGCCTGTGCTGAGAGCACCTCCAGAACCTGGGGTCGGAAGGACCAGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG219097 representing NM_032680
 Red=Cloning site Green=Tags(s)

MAAPDGRVVSRLPQLGQSGGQPKGSGACGLHPLDSLEQKETQEQTSGQLVMLRKAQEFFQTCDAEKGKFI
 ARKDMQRLHKELPLSLEELDVFDALDADGNGYLTPEFTTGFSHFFSQNNPSQEDAGEQVAQRHEEKV
 YLSRGDEDLDGMDGEDEEAQFRMLMDRLGAQKVLDESDVKQLWLQLKKEEPHLLSNFEDFLTRIISQLQE
 AHEEKNELECALKRKIAAYDEEIQHLYEEMEQQIKSEKEQFLKDTERFQARSQLEQKLLCKEQELEQL
 TQKQKRLGQCTALHHDKHETKAENTKLKLTNQELARELERTSWELQDAQQQLESLLQEQACKLHQEKEME
 VYRVTESLQREKAGLLKQLDFLRVCVGGHWPVLRAPPSRLGSEGPV

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_032680

ORF Size: 1185 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_032680.4](#)

RefSeq Size: 2204 bp

RefSeq ORF: 1188 bp

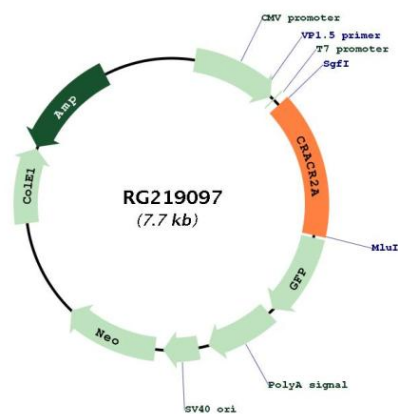
Locus ID: 84766

UniProt ID: [Q9BSW2](#)

Cytogenetics: 12p13.32

Gene Summary: Ca(2+)-binding protein that plays a key role in store-operated Ca(2+) entry (SOCE) in T-cells by regulating CRAC channel activation. Acts as a cytoplasmic calcium-sensor that facilitates the clustering of ORAI1 and STIM1 at the junctional regions between the plasma membrane and the endoplasmic reticulum upon low Ca(2+) concentration. It thereby regulates CRAC channel activation, including translocation and clustering of ORAI1 and STIM1. Upon increase of cytoplasmic Ca(2+) resulting from opening of CRAC channels, dissociates from ORAI1 and STIM1, thereby destabilizing the ORAI1-STIM1 complex.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG219097