

Product datasheet for **RG226784**

EFCAB4B (CRACR2A) (NM_001144958) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	EFCAB4B
Synonyms:	EFCAB4B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence: >RG226784 representing NM_001144958
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCTGCCCTGACGGGAGGGTAGTCTCCAGACCCCAGAGACTTGGTCAGGGGTCTGGCCAGGGGCCAA
 AGGGGAGTGGAGCCTGCCTGCATCCCTGGACAGCCTGGAGCAGAAGGAGACTCAGGAGCAAACGTCGGG
 CCAGCTAGTCATGCTGAGGAAGGCACAGGAGTTCTTTCAGACCTGTGATGCTGAAGGCAAGGGCTTCATC
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 TTCCTGAGGAGATTCTGTGAGGACCGTTCTCCCAGGCATGGCGGCCACTGTGGGCATTGATTACCGTG
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 CACGGAGAACAATCTGATCTTCTATGAATGCAGCGCCTACTCTGGTCACAACACCAAGAGTCCCTGCTC
 CATCTGGCCAGGTTCTCAAGGAGCAAGAAGACACAGTGAGAGAGGACACCATTAGGTGCGCCACCCTG
 CTAAGAAGAAATCTGCTGTGCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG226784 representing NM_001144958

Red=Cloning site Green=Tags(s)

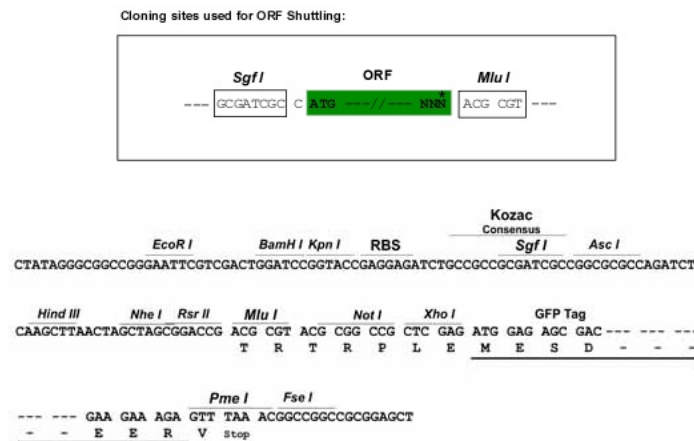
MAAPDGRVSRPQRLGQGSGQGPKGSGACLHPLDSLEQKETQEQTSGQLVMLRKAQEFFQTCDAEKGKFI
ARKDMQRLHKELPLSLEEDVFDALDADNGYLTPQEFTTGFSHFFFQNNPSQEDAGEQVAQRHEEKV
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AHEEKNELECALKRKIAAYDEEIQHLYEEMEQQIKSEKEQLLKDTERFQARSQELEQLLKCEQELEQL
TQKQKRLGQCTALHHDKHETKAENTKLKLTNQELARELERTSWELQDAQQQLESLQQEACKLHQEKEME
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ILRSQSEEEEEVFIPRRSSLGLSGYPLTEEPGTGEPGPGGPYPRPLRRIISVEEDPLPQLLDGGFEQP
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FLRRFCEDRFSPGMAATVGIDYRVKTLNVDNSQVALQLWDTAGQERYRCITQQFFRKADGVIMYDLTDK
QSFLSVRRWLSVVEEAVGDRVPVLLGNKLDNEKEREVPRGLGEQLATENNLI FYECSAYS GHNTKESLL
HLARFLKEQEDTVREDTIQVGHPAKKKSCCG

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN:

NM_001144958

ORF Size:

2193 bp

OTI Disclaimer:

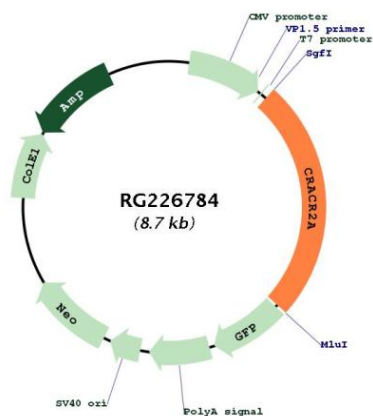
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<u>NM_001144958.2</u>
RefSeq Size:	2795 bp
RefSeq ORF:	2196 bp
Locus ID:	84766
UniProt ID:	<u>Q9BSW2</u>
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 RG226784