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Product datasheet for RC218292

CAMLG (NM_001745) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAMLG (NM_001745) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CAMLG
Synonyms:	CAML; GET2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC218292 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTCGATGGCCGTCGCTACCGACGGCGGGGAGAGGCCGGGGGTCCCAGCGGGCTCAGGTCTGTCGG
CTTCCCAGCGTCGGGCGGAGCTGCGTCGGAGAAAGCTGCTCATGAACTCGGAACAGCGCATCAACCGGAT
CATGGGCTTTCACAGGCCCGGGAGCGGCGCGGAAGAAGAAAGTCAAACAAAATCAAAGCAGCAGGACAGT
GATAAACTGAACTCCCTCAGCGTTCCTTCCGTTTCAAAGCGAGTAGTGCTGGGTGATTCAGTCAGTACAG
GAACAACTGACCAGCAGGGTGGTGTGGCCGAGGTAAAGGGGACCCAACTGGGAGACAAATTGGACTCGTT
CATTAAACCACCTGAGTGCAGTAGTGATGTCAACCTTGAGCTCCGGCAGCGGAACAGAGGGGACCTGACA
GCGGACTCGGTCCAGAGGGGTTCCCGCCATGGCCTAGAGCAGTACCTTTCCAGATTCGAAGAAGCAATGA
AGCTAAGGAAACAGCTGATTAGTGAAAAACCCAGTCAAGAGGATGGAAATACAACAGAAGAATTTGACTC
TTTTCGAATATTTAGATTGGTGGGATGTGCTCTTCTTGCTCTTGGAGTCAGAGCTTTTGTTTGCAAATAC
TTGTCCATATTTGCTCCATTTCTTACTTTACAACTTGCGTACATGGGATTATACAAATATTTTCCCAAGA
GTGAAAAGAAGATAAAGACAACAGTACTAACAGCTGCACTTCTATTGTCGGGAATTCCTGCCGAAGTGAT
AAATCGATCAATGGATACCTATAGCAAAATGGGCGAAGTCTTCACAGATCTCTGTGTCTACTTTTTCACT
TTTATCTTTTGTCATGAACTGCTTGATTATTGGGGCTCTGAAGTACCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC218292 protein sequence
Red=Cloning site Green=Tags(s)

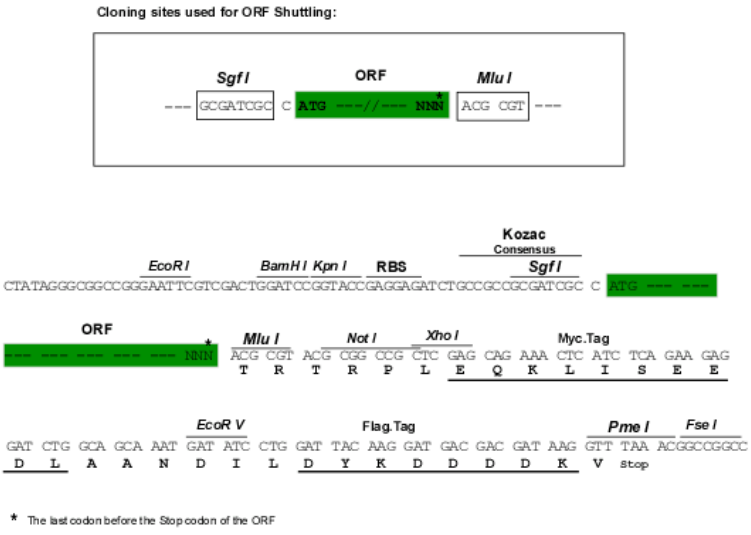
MESMAVATDGGERPGVPAGSGLSASQRRAELRRRKLLMNSEQRINRIMGFHRPGSGAEEESQTKSKQQDS
DKLNSLSVPSVSKRVVLGDSVSTGTTDQQGGVAEVKGTQLGDKLDSFIKPPECSSDVNLELRQRNRGDLT
ADSVQRGSRHGLEQYLSRFEEAMKLRKQLISEKPSQEDGNTTEEFDSFRIFRLVGCALLALGVRAFVCKY
LSIFAPFLTLQLAYMGLYKYFPKSEKKIKTTVLTAALLLSGIPAEVINRSMDTYSKMGEVFTDLCVYFFT
FIFCHELLDYWGSEVP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6467_c05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001745

ORF Size: 888 bp

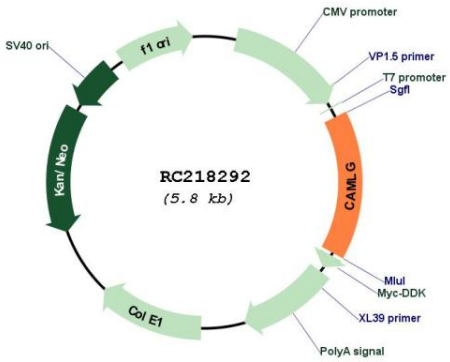
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

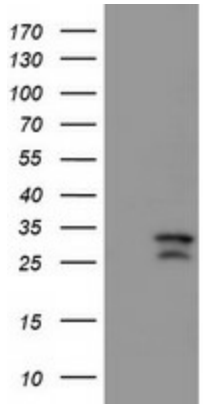
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_001745.4
RefSeq Size:	2255 bp
RefSeq ORF:	891 bp
Locus ID:	819
UniProt ID:	P49069
Cytogenetics:	5q31.1
Protein Families:	Druggable Genome
MW:	33 kDa
Gene Summary:	The immunosuppressant drug cyclosporin A blocks a calcium-dependent signal from the T-cell receptor (TCR) that normally leads to T-cell activation. When bound to cyclophilin B, cyclosporin A binds and inactivates the key signaling intermediate calcineurin. The protein encoded by this gene functions similarly to cyclosporin A, binding to cyclophilin B and acting downstream of the TCR and upstream of calcineurin by causing an influx of calcium. This integral membrane protein appears to be a new participant in the calcium signal transduction pathway, implicating cyclophilin B in calcium signaling, even in the absence of cyclosporin. [provided by RefSeq, Jul 2008]

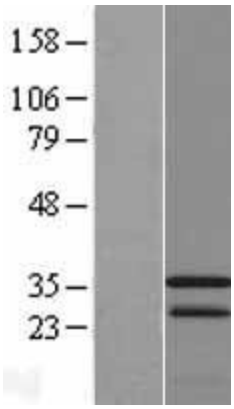
Product images:



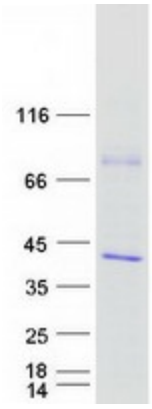
Circular map for RC218292



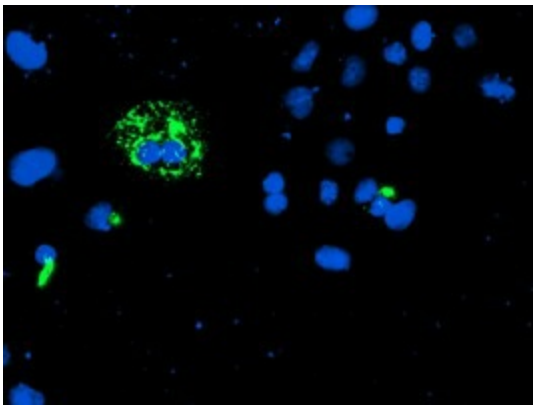
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CAMLG (Cat# RC218292, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CAMLG (Cat# [TA504329]). Positive lysates [LY419768] (100ug) and [LC419768] (20ug) can be purchased separately from OriGene.



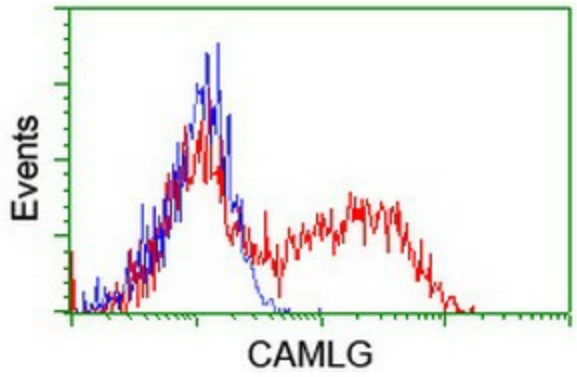
Western blot validation of overexpression lysate (Cat# [LY419768]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218292 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CAMLG protein (Cat# [TP318292]). The protein was produced from HEK293T cells transfected with CAMLG cDNA clone (Cat# RC218292) using MegaTran 2.0 (Cat# [TT210002]).



Anti-CAMLG mouse monoclonal antibody ([TA504329]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY CAMLG (RC218292).



HEK293T cells transfected with either RC218292 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-CAMLG antibody ([TA504329]), and then analyzed by flow cytometry.