

Product datasheet for **RC202322**

eIF2B epsilon (EIF2B5) (NM_003907) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	eIF2B epsilon (EIF2B5) (NM_003907) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	eIF2B epsilon
Synonyms:	CACH; CLE; EIF-2B; EIF2Bepsilon; LVWM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC202322 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGGCCCTGTAGTGGCGCCCTGGTGTGGTGGTTAGTCGGGCTAACAAAGCGCAGCGCGCGGGC
CGGGAGGCAGCGGTGGCGGGGGAGCCAGAGGGCGGAGGAGGAACCGCCCGCCCTACAAGCAGTTCT
GGTGGCCGATAGCTTCGATCGCCGCTTCTTCCCATCTCCAAGGACCAGCCTCGGGTCTCTTGCCCTG
GCCAATGTGGCATTAAATTGACTACACTCTGGAATTCCTGACTGCCACAGGTGTACAGGAAACATTTGTCT
TTTGTGCTGAAAGCTGCTCAAATCAAAGAACATTTACTGAAGTCAAAGTGGTGGCCCTACATCTCT
CAATGTGGTTCGAATAATTACATCAGAGCTCTATCGATCACTGGGAGATGTCTCCGTGATGTTGATGCC
AAGGCTTTGGTGCCTGACTTCTTCTGGTGTATGGGATGTCATCTCAAACATCAATATCACCAGAG
CCCTTGAGGAACACAGGTTGAGACGGAAGCTAGAAAAAATGTTTCTGTGATGACGATGATCTTCAAGGA
GTCATCCCCAGCCACCAACTCGTTGCCACGAAGACAATGTGGTGTAGTGGCTGTGGATAGTACCACAAC
AGGGTTCTCCATTTTTCAGAAAGACCAGGGTCTCCGGCGTTTTGCATTTCCCTGAGCCTGTTTCAGGGCA
GTAGTGATGGAGTGGAGTTCGATATGATTTACTGGATTGTCATATCAGCATCTGTTCTCCCTCAGGTGGC
ACAACCTTTTACAGACAACCTTTGACTACCAAACCGAGATGACTTTGTGCGAGGTCTCTTAGTGAATGAG
GAGATCCTAGGGAACCAGATCCACATGCACGTAACAGCTAAGGAATATGGTGGCCGTGTCTCCAACCTAC
ACATGACTCAGCTGTCTGTGCTGACGTCACTCCGCCGATGGGTCTACCCTCTCACCCAGAGGGCAACTT
CACTGACAGCACCACCCAGAGCTGCACTCATTCCCGGCACAACATCTACCGAGGGCCTGAGGTGAGCCTG
GGCCATGGCAGCATCCTAGAGGAAAATGTCTCCTGGGCTCTGGCACTGTATTGGCAGCAATTGCTTTA
TCACCAACAGTGTCAATTGGCCCCGGCTGCCACATTGGTGATAACGTGGTGGTGGACCAGACCTACCTGTG
GCAGGGTGTTCGAGTGGCGGCTGGAGCACAGATCCATCAGTCTCTGCTTTGTGACAATGCTGAGGTCAAG
GAACGAGTGACACTGAAACCACGCTCTGTCTCACTTCCAGGTGGTCTGGGCCAAATATCACGCTGC
CTGAGGGCTCGGTGATCTCTTTCACCCCTCCAGATGCAGAGGAAGATGAAGATGATGGCGAGTTCAGTGA
TGATTCTGGGGCTGACCAAGAAAAGGACAAAGTGAAGATGAAAGGTTACAATCCAGCAGAAGTAGGAGCT
GCTGGCAAGGGCTACCTCTGAAAGCTGCAGGCATGAACATGGAGGAAGAGGAGGAACTGCAGCAGAATC
TGTGGGGACTCAAGATCAACATGGAAGAAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
GCCGACAGCCGGGGAGGCTCCCCTCAGATGGATGACATCAAAGTGTCCAGAATGAAGTTTTAGGAACA
CTACAGCGGGGCAAAGAGGAGAAACATTTCTTGTGACAATCTCGTCTGGAATCAACTCTCTCAAGTATG
CCTATAACGTAAGTCTAAAGGAGGTGATGCAGGTACTGAGCCACGTGGTCTGGAGTTCCCCTGCAACA
GATGGATTCCCCTTACTCAAGCCGCTACTGTGCCCTGCTGCTTCTCTGCTAAAGGCCCTGGAGCCCT
GTTTTTAGGAACTACATAAAGCGCGCAGCCGACCATTTGGAAGCGTTAGCAGCCATTGAGGACTTCTTCC
TAGAGCATGAAGCTCTTGGTATTTCCATGGCCAAGGACTGATGGCTTTCTACCAGCTGGAGATCTGGC
TGAGGAAACAATTCTGAGCTGGTTCAGCCAAAGAGATACAACAGCAAGGGCCAGCAGTTGCGCAAGAA
CAACAGCTGCAGAGGTTCCATCCAGTGGCTAAAAGAGGCAGAAGAGGAGTCACTGAAGATGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202322 protein sequence
Red=Cloning site Green=Tags(s)

MAAPVVAPPGVVVSRANKRSGAGPGGSGGGGARGAEIEPPPLQAVLVADSFDRRFFPISKDQPRVLLPL
 ANVALIDYTLLEFLTATGVQETTFVCCWAAQIKEHLLKSKWCRPTSLNVVRIITSEL YRSLGDVLRD VDA
 KALVRSDFLLVYGDVISNINITRALEEHLRRLKLEKNVSVMTMIFKESSPSHPTRCHEDNVVVAVDSTTN
 RVLHFQKTQGLRRFAFPLSLFQGS SDGVEVRYDLLDCHISICSPQVAQLFTDNFDYQTRDDFVRGLLVNE
 EILGNQIHMHVTAKEYGARVSNLHMYSAVCADVIRRWVYPLTPEANFTDSTTQSC THSRHNIYRGPEVSL
 GHGSILEENVLLGSGTVIGSNCFITNSVIGPGCHIGDNVVL DQTYLWQGV RVAAGA QIHQSLLCDNAEVK
 ERVTLKPRSVLTSQVVVGP NITLPEGSVISLHPPDAE EDEDDGEFSDDSGADQE KDKVKMGYNPAE VGA
 AGKGYLWKAAGMNME EEEELQQNLWGLKINME EEESESESEQSMDSEEPDSRGGSPQMDDIKVFQNEVLGT
 LQRGKEENISCDNLVLEINSLKYAYNVSLKEVMQVLSHVLEFP LQQMDSPLDSSRYCALLLPLLKAWSP
 VFRNYIKRAADHLEALAAIEDFLEHEALGISMAKVLMAFYQLEILAETILSWFSQRD TDKGQQLRKN
 QQLQRFIQWLKEAEEESSEDD

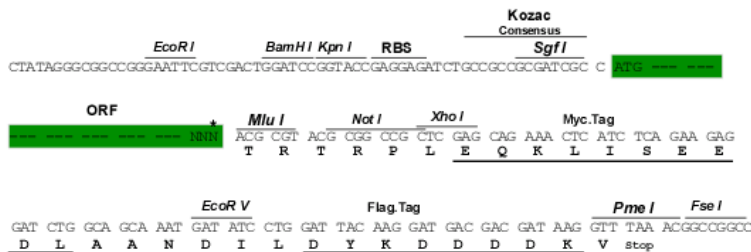
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6303_g08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_003907

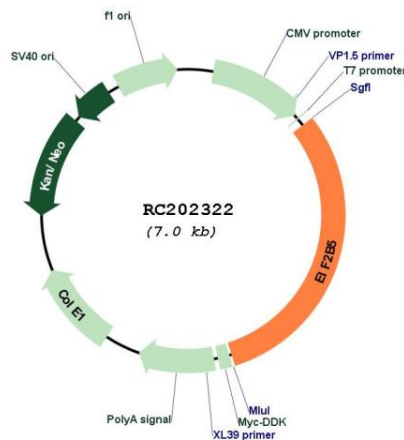
ORF Size: 2163 bp

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](#)

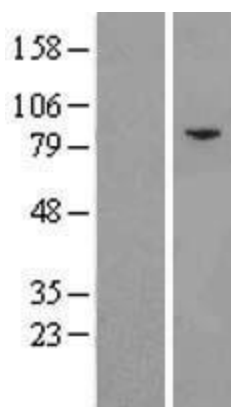
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none"> 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:	<u>NM_003907.1, NP_003898.1</u>
RefSeq Size:	2898 bp
RefSeq ORF:	2166 bp
Locus ID:	8893
UniProt ID:	<u>Q13144</u>
Cytogenetics:	3q27.1
MW:	80.4 kDa
Gene Summary:	This gene encodes one of five subunits of eukaryotic translation initiation factor 2B (EIF2B), a GTP exchange factor for eukaryotic initiation factor 2 and an essential regulator for protein synthesis. Mutations in this gene and the genes encoding other EIF2B subunits have been associated with leukoencephalopathy with vanishing white matter. [provided by RefSeq, Nov 2009]

Product images:



Circular map for RC202322



Western blot validation of overexpression lysate (Cat# [LY418363]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202322 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).