

Product datasheet for **RC207506**

DIP13B (APPL2) (NM_018171) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DIP13B (APPL2) (NM_018171) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	APPL2
Synonyms:	DIP13B
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide
Sequence:

>RC207506 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCCCGCGTGGACAAGCTCCTGCTAGAGGAGCGTTGCAGGACAGCCCCAGACTCGCTCTTTACTGA
GGTGTTTTGAAGAAGATGCTGGCACCTCACAGACTATACCAACCAGCTGCTCCAGGCAATGCAGCGCGT
CTATGGAGCCAGAAATGAGATGTGCTGGCCACACAACAGCTTTCTAAGCAACTGCTGGCATATGAAAA
CAGAACTTTGCTCTTGGCAAAGGTGATGAAGAAGTAATTTCAACACTCCACTATTTTTCCAAAGTGGTGG
ATGAGCTTAATCTTCTCCATACAGAGCTGGCTAAACAGTTGGCAGACACAATGGTTCTACCTATCATACA
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GACCTCTCAATGGCAAAATACAGCAGGCTGCCTAAGAAAAAGGAGAATGAGAAGGTGAAGACCGAAGTGC
GAAAAGAGGTGGCCGCGCCCGGGAAGCAGCATCTCTCTCCCTTCACTACTGTGCCCTCAACGC
GCTGCAGTACAGAAAGCAATGGCCATGATGGAGCCCATGATAGGCTTTGCCATGGACAGATTAACCTT
TTTAAGAAGGGAGCAGAGATGTTTTCCAACGTATGGACAGCTTTTTATCTCCGTTGCAGACATGGTTC
AAAGCATTCAAGTAGAACTGGAAGCCGAGGCGGAAAAGATGCGGGTGTCCAGCAAGAATTACTTTCTGT
TGATGAATCTGTTTACACTCCAGACTCTGATGTGGCCGCACCACAGATCAACAGGAACCTCATCCAGAAG
GCTGGTTACCTTAATCTTAGAAACAAAACAGGGCTGGTACCACCACCTGGGAGAGGCTTTATTTCTTCA
CCCAAGGCGGGAATCTCATGTGTGAGCCAGGGGAGCCGTGGCTGGAGGTTTGATCCAGGACCTGGACAA
CTGCTCAGTGTGGCCGTGGATTGCGAAGACCGGCGCTACTGCTCCAGATCACCACGCCAATGGAAAA
TCGGGAATAATCTCCAGGCTGAGAGCAGAAAGGAAAAAAGAAGTGGATATGTGCAATAAACAACATCT
CCAGACAGATCTACCTGACCGACAACCCTGAGGCAGTCGCGATCAAGTTGAATCAGACCGCTCTGCAAGC
AGTGACTCCATTACAAGTTTTGGAAAAACAAGAAAGCTCATGCCCCAGCCAGAACCTGAAAAATTCA
GAGATGGAAAATGAAAATGACAAGATTGTTCCCAAAGTAACAGCCAGTCTACCTGAAGCAGAGGAGCTGA
TCGCGCTGGAACGCGGATTCAATTCGATATTGTGCTTCTGCTACAGAATTCCTTGATCAGAACAGAGG
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CAGCAGATGTTTATAGTTCGTTTTGGGATCAATGGCAGTTAAAACAGACAGCACTACTGAAGTGATTT
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GATGGTACCAGTCAATCTTTGAGTTGATAGATCCACAGACTCAAGTATCAAGGGCCAATTTGAACTT
ACCAGTGTACACAATTTGCTGCTCATCAAGAAAACAAGAGACTGGTTGGTTTTGTCATCCGTGTTCTCTG
AATCCACTGGAGAAGAATCTCTGAGTACATACATTTTTGAAAGCAACTCAGAAGGCGAAAAGATATGTTA
TGCTATTAATTTGGGAAAAGAAATTATTGAGGTTCAGAAGGATCCAGAAGCACTGGCTCAATTAATGCTG
TCCATACCACTAACCAATGATGGAAAATATGTAAGTGTAAACGATCAACCAGATGACGATGATGAAATC
CAATGAACATAGAGGCGCAGAATCCGAAGCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207506 protein sequence
 Red=Cloning site Green=Tags(s)

MPAVDKLLLEEALQDSPQTRSLLSVFEEDAGTLTDYTNQLLQAMQRVYGAQNEMCLATQQLSKQLLAYEK
 QNFALGKGDDEEIVISTLHYFSKVVDELNLLHTELAKQLADTMVLP I IQFREKDLTEVSTLKDLFGLASNEH
 DL SMAKYSRLPKKKENEVKTEVGKEVAAARRKQHLSSLQYYCALNALQYRKQMAMMEPMIGFAHGQINF
 FKKGAEMFSKRMDSFSSVADMVQSIQVELEAEAEKMRVSQQEELLSVDESUYTPDSDVAAPQINRNLIQK
 AGYLNLRNKTGLVTTTWERLYFFTQGGNLMCQPRGAVAGGLIQDLDNCSVMAVDCEDRRYCFQITTPNGK
 SGIILQAESRKENEWICAINNISRQIYLTDNPEAVAIAIKLNQTALQAVTPITSFGKKQESSCPSQNLKNS
 EMENENDKIVPKVTASLPEAEELIAPGTPIQFDIVLPATEFLDQNRGSRRTNPFGETEDESPEAEDSL
 QQMFIVRFLGSMVAKTDTSTTEVIYEAMRQVLAARA IHNIFRMTESHLMVTSQSLRLIDPQTQVSRANFEL
 TSVTQFAAHQENKRLVGFVIRVPESTGEESLSTYIFESNSEGEKICYAINLGKEIEEVQKDPALQML
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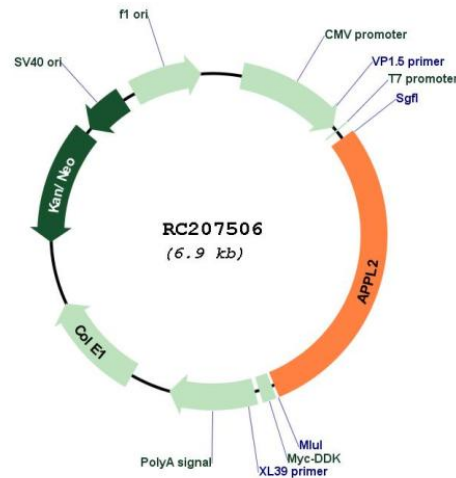
Chromatograms: https://cdn.origene.com/chromatograms/mk6517_h08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_018171

ORF Size: 1992 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.

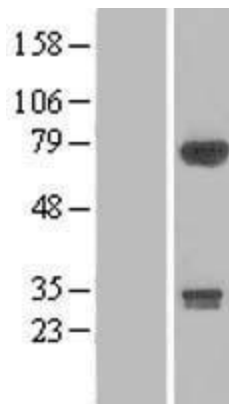
RefSeq: [NM_018171.5](#)

RefSeq Size: 3289 bp

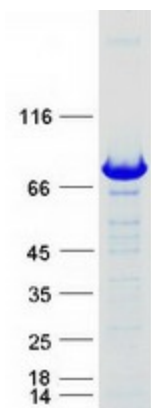
RefSeq ORF:	1995 bp
Locus ID:	55198
UniProt ID:	Q8NEU8
Cytogenetics:	12q23.3
Domains:	PH, PID
MW:	74.5 kDa

Gene Summary: The protein encoded by this gene is one of two effectors of the small GTPase RAB5A/Rab5, which are involved in a signal transduction pathway. Both effectors contain an N-terminal Bin/Amphiphysin/Rvs (BAR) domain, a central pleckstrin homology (PH) domain, and a C-terminal phosphotyrosine binding (PTB) domain, and they bind the Rab5 through the BAR domain. They are associated with endosomal membranes and can be translocated to the nucleus in response to the EGF stimulus. They interact with the NuRD/MeCP1 complex (nucleosome remodeling and deacetylase /methyl-CpG-binding protein 1 complex) and are required for efficient cell proliferation. A chromosomal aberration t(12;22)(q24.1;q13.3) involving this gene and the PSAP2 gene results in 22q13.3 deletion syndrome, also known as Phelan-McDermid syndrome. [provided by RefSeq, Oct 2011]

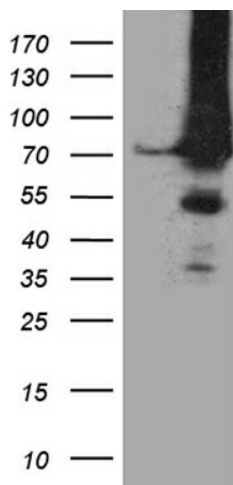
Product images:



Western blot validation of overexpression lysate (Cat# [LY413268]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207506 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified APPL2 protein (Cat# [TP307506]). The protein was produced from HEK293T cells transfected with APPL2 cDNA clone (Cat# RC207506) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY APPL2 (Cat# RC207506, 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-APPL2 (Cat# [TA812384]). Positive lysates [LY413268] (100ug) and [LC413268] (20ug) can be purchased separately from OriGene.