

Product datasheet for **RR213236**

Epb41I4b (NM_001127565) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epb41I4b (NM_001127565) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Epb41I4b
Synonyms:	RGD1562988
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR213236 representing NM_001127565
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGCGGTTCTCTGCGCCGACCTTTGGCCGCCCTCCATGCAGCGCTACGCGCGGGCGCGCGGGGCG
 GCGGGGCCGCGGGCTGGGGGACGAGCGGACGCGGGGGCCGCGAGGGGGCCCGCCGCGCCGCGCCAGCTC
 CTCCTGTCTGCCGCGCGCCCGGGGTAGCGTGTCCCGGCGCGCGGGGCCCTGCTCACCGCGCGC
 GCGGCTGTGCACATCTCCGCTCGGGAGCTGCCAAGGCCACCCTTTACTGCCGTGTCTTCTGCTCGACG
 GAACCGAAGTGAGCGTGGACCTGCCAAACATGCCAAAGGCCAGGATTTGTTCCGACCAGATTGTGTACCA
 CTTGGACCTGGTGAACAGATTATTTGGTCTGCAGTTCTCGACTCCGCCAGGTCACGCACTGGCTG
 GATCACTCGAAACCCATAAAGAAGCAGATGAAAGTCGGACCTGCCTACGCTTTGCACTTTGAGTCAAA
 ACTATTCTTCAGAACCGAACACCTTCGAGAGGAATTTACAAGGTACCTGTTTGTCTACAACCTCAGGCA
 TGACATTTCTTGGAAAAGTGAAGTGCCTATGAAACAGCCGTGGAAGTACGCTCCCTCTGTCTGCAA
 GCGGAGCTAGGAGAGTGTGAGCTCCCGAACACACACCGGAGCTTGTGTCTGAGTTTCGGTTCATCCCAA
 ATCAGACAGAAGCCATGGAGTTCGATATCTCCAGAGATGGAAAGAGTACAGGGGAAAGAGCCCTGCCCA
 GGCGGAACTCTCTATCTGAACAAAGCGAAGTGGCTGAAATGTATGGGGTGGACATGCATGTTGTGACGG
 GGAAGAGATGGCTGTGAATATTCTTTGGACTGACCCCGACAGGCATATTAATCTTTGAAGGAGCTAACA
 AAATAGGCTTATTCTTTGGCCTAAGATCACAAAATGGACTTTAAAAGAGCAAACCTGACCCTCGTGGT
 AGTGGAGGATGACGACAGGGCGGTGAGCAAGAGCACACCTTCGTGTTTCCAGGCTGGACAGCGCGCGCACC
 TGCAAGCACCTGTGGAAGTGCCTGTGGAGCACCACGCTTCTCCGCTGCGCACGCCAGCAACAGCA
 AGTCCGCCAGATCCGACTTCATCCGGCTGGTTCGCTTCCGTTTCCGTTTCCGTTTCCGTTTCCGTTTCCGTT
 TACACACGGCTCCAGATTGCGAAGAACCAGCACCTTTGAGAGGAAGCCTAGCAAACGTTACCTTCCCGG
 CGACATTTCCATTTCAAAGCGAGCAACCCAGTATTGCTGCCAGCTCTGCTCTAAAACAATCCTGAAG
 TCCATAACTACCAGCTCAGTTTCATCCTAACGTCACCCAGCCAGCCAGGTTGGCGCCCTCACTCCCC
 AAATGTGAGTAACCATTCACCTGCAAACAACAAGCCGCTTTTTCAGGATGACAGGCCGCACTGGAAA
 GCCTCAGCCAGTGGAGATGACGGCCACTTTGACTATGTCCACGACCAGAACCAGAGGAACCTAGGAGGGG
 CGTACAGTGTACATACCGGGACAACTCATGACCGCACTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR213236 representing NM_001127565
 Red=Cloning site Green=Tags(s)

MLRFLRRTFGRRSMQRYARGAAGRGAAGLGDERDGGPRGGPAAAASSSVLPAAPGGSVFPAGGGPLL TGG
 AAVHISASGAAKATLYCRVFLLDGTEVSVDLPKHAKGQDLFDQIVYHLDLVETDYFGLQLDLSAQVTHWL
 DHSKPIKKQMKVGPAYALHFRVKYYSSEPNLREEFTRYLFVLQLRHDILSGKLCOPYETAVALAALCLQ
 AELGECLEPEHTPELVSEFRFIPNQTEAMEFDIFQRWKEYRGKSPAQAELSYLNKAKWLEMYGVDMHVVR
 GRDGCEYSLGLTPTGILIFEGANKIGLFFWPKITKMDFKKSKLTLVVVEDDDQGREQEHTFVFRLLDSART
 CKHLWKCAVEHHAFRLRTPSNSKSARSDFIRLGSFRFSGRTEYQATHGSRLRRTSTFERKPSKRYPSR
 RHSTFKASNPVIAAQLCSKTNPVHNYQPQFHPNVHPSQPRWRPHSPNVSNHSTCKQNKPSFQDDRPHWK
 ASASGDDGHFDYVHDQNRNLGGAYSVTYRDKLMTAL

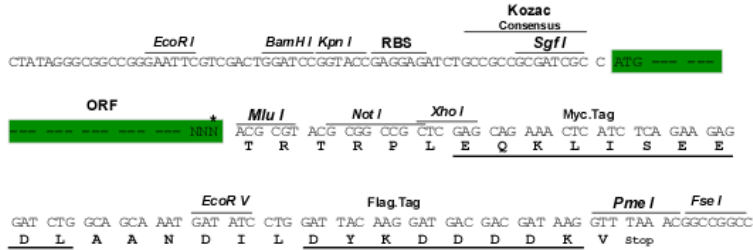
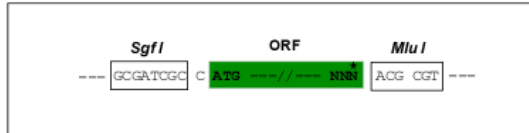
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

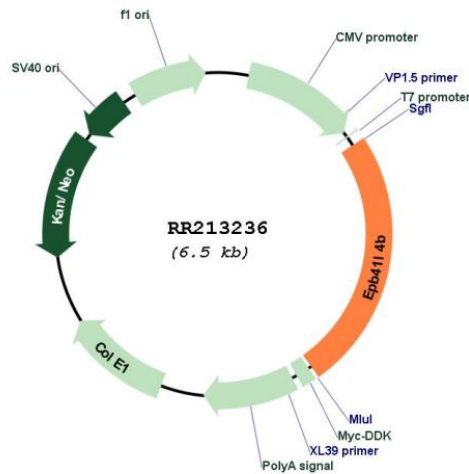
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001127565
ORF Size:	1581 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:	NM_001127565.1 , NP_001121037.1
RefSeq Size:	2218 bp
RefSeq ORF:	1584 bp
Locus ID:	500464
UniProt ID:	B2RYE5
Cytogenetics:	5q24
MW:	59.6 kDa
Gene Summary:	Up-regulates the activity of the Rho guanine nucleotide exchange factor ARHGEF18. Involved in the regulation of the circumferential actomyosin belt in epithelial cells. Promotes cellular adhesion, migration and motility in vitro and may play a role in wound healing. May have a role in mediating cytoskeletal changes associated with steroid-induced cell differentiation. [UniProtKB/Swiss-Prot Function]