

Product datasheet for **RR209577**

Prag1 (NM_001107315) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Prag1 (NM_001107315) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Prag1
Synonyms: Pragmin; RGD1311793
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR209577 representing NM_001107315
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGGATCGCC

ATGCTGCGTGCACTGACTTTGTGGAGCACATCTGAAACCCGGATCCTGCAAGAACTGCTTCTGCTTGA
GGAGTGACCATCAGCTCACAGCTGGCCACCCAAAGCTAGAGCCAGCAGCCTACCCGCTGGAGCTCGCT
GCCTGCCAGGCCCTGAGATTTGCCGCTTAGAGGATGAAGGTGTGAATGGCTTGGCCTACTCAAAGCCACC
ATTGCGGTAAAGCCACCATGATGACTTCTGAGACTGCCGACTTGTGGACTGAGGCCAGCCTGAGCGCTG
AAGTTCCAAAGGTCAACTGGAGACGAACTCCAGGCAAGCTCCTGCTCCAGAAACAGGAAGATGGGCAAT
AGTTTACCTCGGCAGCTTCCGAGGAATGCAGAAGGCTGCAGGCCCTCTCGCTGCACAGATAGCAACTCT
CGTTGTCCCCAGCCTACACCATGGTCGGACTGCATAACCTGGAGGCCGAGTGGATAGGAACACCCGCC
TCCAACCAAGTGAATTTCCAGGAAGAGAAGGCTGGGAGGGAAGAGCTGCCCTCAGCTCAGGAGAGCTTTG
TCAGAAGCTAGCTGCCTTACAGGGATGACGTCAGCTGCCTCAAGGGCCCCAGACCTGCACTTCTCCA
CAGCCCTTGCAGGAGTCCCTGCCCTCAGAGGATGACAGTGACCAAGGTGCTCACCTCAGGAGACAGCG
AAGGTGGGAGTACTGCTCCATTTTGGACTGTCGTCCAGAATCCAGAGATGCTGTGCATAACACCCGAGGG
CTCTGGCCGACGCGAGGGGACTGCTCACCCATATGCTGGGAGCAGGGAACATGTACAAGACCAACAGAA
GAGGAAAAGCAGGCTCTGAACTTCCCCAGAGAGTGTGTGGTCAAGGATCCACAGCAAACCCACCCACC
TGGGCCCCAAGAAGCCGTCCTTAACTCAGAGGCTGCCAGCTCTTCAAGTGGTCTGTCTGTGGCAGCAG
CCGCAAGTGGTCCAAACAGCCCTTTGCTCCACACCTGGAGAATGACTACTGCTCTTGTGAAGGAGCCA
ACCTCGGTGAAGCAGCAGGACTCTGGCTGCCACTTAGTCAACTCTGGCAAATATGTGGTCAAGCCGTGG
ACCTCCAGCCCCAGCCCTTCTAGGGAGGCTGTGCAGCCTGAACCCATCTACGCCGAAAGTGCCAAGAG
GAAGAAGGCAGCTCCGGTGCCTCAGAGGCCGAGCCCAAGAAAGAGCAGGTCTCGTCTGGCCAAGTATGG
ACAGGCGATACCTGGTCTCAGAAGACACCTCTGGCTGGAGCCAGGAAAGGGAAGGCCAAACGCTGCTC
CTCAGGTGGCAACCACTATTACTGTTATTGCTGCTCACCCAGAAGAGGACCATAGGACTATTATCTGAG
CAGCCCAGACTCTGCCGTGGGGTGCAGTGGCCACGTGGGTCTTTGAACAGGACTTACATGGTAGTGGGA
GAAGAGCCTTTGGTCGTGCAGGGGCTAAGCTCAAGGGAGAGCCATCCACATAATATGACAGAAAACCTCGT



[View online >](#)

CCAAAGAAAAGCCTGCCATACCCCCAAGCTGTCCAAAAGCAGCCCGGGAGGGTCCCCGGTGTACCTGC
AGCCCCCCTCTGACTGACCACAGTGTGGGAACACCAGTGGCAGCAGTGTGGATCTCAGCCTTCGTCT
AGAGTCCCTACTAACCTAACTTCTTCTGCCAGACCAATGGTGTGGCCGGTGACCCTGCCAAGTGC
CCCCACAAGCCAACTCTTCACTTGGACCAGAGGCGGCCAAGATACCAGACTGGTGCATGGAGCCGCCA
GTGCCGGATAGAGGAGGAGGAAGAGGTGGGGCAGGAGTGTGAGTCAAAGTTGGGGGAGAGAGTTGGAA
AATGGTATTGCAGACCATTCAAACCTCTACCTGGCACCAGCTCCATCCATTGATGGCGCCTCTGGGC
AGAACGGCAAAACTAACTCTGGGATGAGCAAATCAGCTTCTTTGCGTTTGAGTTCCAAAGGACAGAGG
CAGATTGGAGTCACTTCTACCCCTCCCCACCTCCAAAGTCAAGGCACCTGTTAAAAATGAACAAGAGC
AGCTCTGACTTGGAGAAAAGTGGAGCAGAGCTCTGCAGAAAAGCCTCAGCCCGTCTTCCGAGGGGCCACG
TCAGTTCACCACGGGCTCCACAGATAGCCTAGCCTCGGACTCCAGGACTTGACAGGATGGAGGTCCATC
GTGTGAAGCCACCCTCACCACCATCAGCGGAAAAAGCTCTTTGCTCCCGTCCCTTTCCCGTACGGC
TCCACGGAGGATGTGTCCCCAGCGTCTGCACAGCCTCTCTCTGCCCCAGAAAAAGATAGTGAGCC
GTGCTGCCTCTCCCTGATGGTCTTCTGGACCAAGGTTCCCTAAGCCACGCACAGCGAGTCCCAA
GCTGAACCTAAGCCACTCGGAAACCAATGTTTGTGCCATGACGAGCCTCTTTGAGCTATTCTTGAAC
TCTGAAAACCATCCCCACCATGTCTTCTCTCTTCTGAGCCTTTGGAGAAAGCTTCAAAGGCAGTGTCC
CCTGGGCCCCAGCTCTGGGTCCAGCAAACAGCAAAGGCGGTTGTGGGAGCCCAATCTCCAGGGCAGAGC
GGCCACCTCCACCTCGTCATCCCAGCTCAGCGTGTCCAGCCAGGCTCCACCGGCAGCAGCCAGCTTCAG
CTGCACAGCCTGTGAGCAGTATCAGCAGCAAGGAGGGCACCTATGCCAAGCTCGGGGGCCTCTACACAC
AGTCCCTGGCCCGCTAGTGACCAAGTGCAGAACCTCTTATGGGTGGTCTGAAAACGGAAGTGCCTT
CGATGAGAACAGCTGGTGCCTTCAAACCTGATATGCAACAAGCCTTGTGTGACTCGGGAGATGCAATT
TACTACGGTGCCACTTGTCCAAGGACCCGACAGCATCTACGCAGTGAAAATCTGCAAAACCCAGAAC
CAAAGTCAGCTTCGTACTGTAGCCCGTCCGTGCCAGTGCATTCACATCCAGCAAGACTGCGGCCACTT
TGTGGCCTCTGTGCCCTCCAGCATGCTTGCCTTCCCGACACATCCAGCAAGACCCTGCGCTGTGCG
CCCTCACACACCCTGCCAGGAGCAGGACTGTGTGGTGGTTCATACCCGGGAGGTGCCGACCCAGACTG
CCTCGGACTTTGTGCGGACTCTGTGGCCAGCCACCGCGCAGAGCCTGAGGTTTACGAGCCCGGGTGTG
CTTCTTGTCTGAGCTCTGCAACGGGCTGGAGCATCTGAAGGAACATGGGATCATCCACCGGGACCTA
TGTCTGGAGAACCTGTTGCTAGTGCATTGCAACCCTCAGAGCTCTCCCGGGCCCTCTGCTAATCCCAGCG
TGCCACCACCACGTCCCGTTGCTTCTGCCGACCCGACGCCACCACAGCCTGCCAGGGAGGACCTGG
TGAGAAGCACCTGCCAGGCTGATCATCAGCAACTTCTGAAGGCCAAGCAGAAGCCGGGAGGCACCACC
AACCTGCAACAGAAGAAGAGCCAGGCCCGGCTGGCCCTGAGATCGTATCTGCCTCTCAGTACCCTAAGT
TTGATGAGTTCAGACTGGCATCTCATCTACGAGCTGCTCCACCAGCCCAACCCATTGAGGTGCGAGC
CCAGCTACGGGAGCGTACTACCGCGGGAGGACCTACCCCGCTGCCACACTGTGCTCTACTCGCCC
GGCCTGCAGCAGCTCGCCACCTGCTCCTTGAAGCCGATCCCATCAAGCGCATCCGCATAGGTGAGGCCA
AGCGGGTGTACAGTGTGCTGTGGGGCCACGGCGAGAGCTGGTAGAGCAGCCGTGCCCTCGGAGGA
GGTACTGTGCAACTCTGCACAAGTGGATCGACATGAAGCGAGCCCTGATGATGATGAAGTTTGGCCGAG
AAGGCGGTAGAACGAAGGCGGGGTGTGGAGCTGGAGGATTGGCTCTGTTGCCAGTACTTGGCCTCAGCAG
AGCCAGGGGCCCTCTGCAGTCCCTGAAGCTCTGCAACTTCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR209577 representing NM_001107315
 Red=Cloning site Green=Tags(s)

```

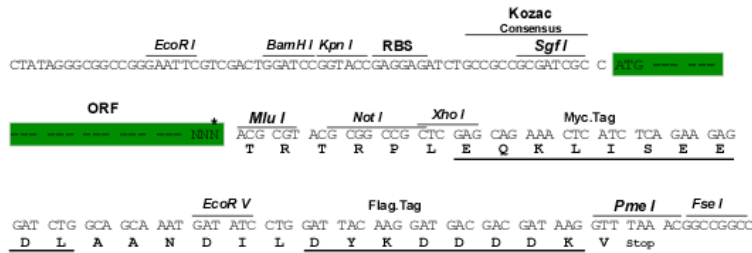
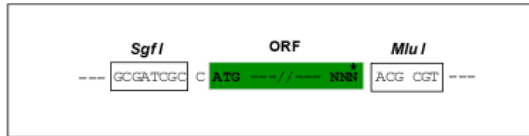
MSACSDFVEHIWKPGSCKNCFCLRSDHQLTAGHPKARASSLPAGARLPARPEICRLEDEGVNGLAYSKPT
IAVKPTMMTSETADLWTEASLSAEVPKVNWRRTPGKLLLQKQEDGPIVYLGSRGMQKAAGPLACTDSNS
RCPPAYTMVGLHNLEARVDRNTALQPVNFQEEKAGREELPSAQESFRQKLAFTGMTSSCLKGPRPCTSP
QPLRESLPSDESDQRCSPSGDSEGGEYCSILDCRPESRDVHNTTEGSGRRRGDCSPICWEQGTCTRPTE
EEKQALNFPRECCGGSTANPPHLGPKKPSLNSEAASSSDGLSCGSSRSGANSPFAPHLENDYCSLVKEP
TSVKQQDSGCHLVNSGKYVYQAVDLQPPALPREAVQPEPIYAESAKRKKAAPVPQRPPEPKKEQVSSGQVW
TGDTWSQKTPSGWSQEREGPNAAPQVATTITVIAAHPEEDHRTIYLSPPDSAVGVQWPRGSLNQLDHLGSG
EEPLVVQGLSSRESHPHNTENSKEKPAIPPKLSKSSPGGSPVSPAAPPLTDHSDGNTSGSSVGSQPS
RVPTNLTSSCQTNGVAAGDPAKCPPQANSSVLDQRRPRYQTGAWSRQCRIEEEEEVGQELLQSWSGRELE
NGIADHSNSSTWHLHPIDGASGQNGKNSGMSKSASF AFEFPKDRGRLESFSPPPPPKSRHLLKMNKS
SSDLEKVSQSSAESLSPSFRGAHVSFTTGSTDSLASDRTSDGGPSCEATHSPTISGKKLFAVPFPSPG
STEDVSPSGPAQPPPLPQKKIVSRAASSPDGFFWTQGSPKRTASPKNLNSHSETNVCAHDEPPLSYSLN
SGNHPHVFSSSEPLEKAFKGSVPWAPALGPANSKGGCGSPNLQGRAATSTSSSLSVSSQASTGSSQLQ
LHSLSSISSKEGTAYKLGGLYTQSLARLVTKCEDLFMGGLKTELRFDENSWSLFKLICNKPCDDSGDAI
YYGATCSKDPDSIYAVKICKTPEPKSASYCSPSPVVFHNIQQDCGHFVASVPSSMLAFPDTSSKDPAA
PSHTPAQEQDCVVVITREVPHTASDFVRDSVASHRAEPEVYERRVCFLLQLCNGLEHLKEHGIHRDL
CLENLLL VHCNPQSSPGPSANPSVPTTTRCPSAAPAATTACQGGGPEKHLPRLIISNFLKAKQKPGTT
NLQKKSQARLAPEIVSASQYRKDFEQTGILYELLHQPNPFVRAQLRERYRREDLPLPTLSLYSP
GLQQLAHLLEADPIKRIRIGEAKRVLQCLLWGPRLVEQPCPSEVLCNTLHNWIDMKRALMMMKFAE
KAVERRRGVELEDWLCQYLAESAEPGALLQSLKLLQLL
  
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:
Cloning Scheme:

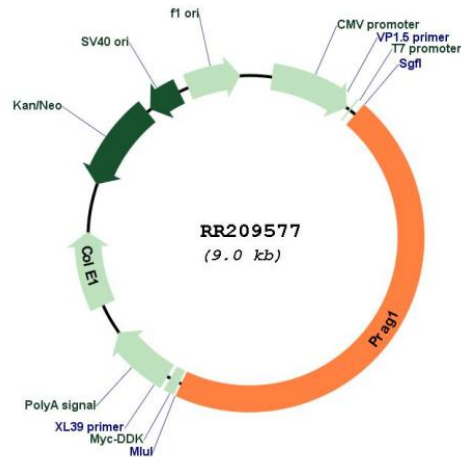
SgfI-MluI

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001107315

ORF Size: 4104 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_001107315.1](#), [NP_001100785.1](#)

RefSeq Size: 4759 bp

RefSeq ORF: 4107 bp

Locus ID: 306506

UniProt ID: [D3ZMK9](#)

Cytogenetics: 16q12.2

MW: 147.7 kDa

Gene Summary: Catalytically inactive protein kinase that acts as a scaffold protein (PubMed:29503074). Functions as an effector of the small GTPase RND2, which stimulates RhoA activity and inhibits NGF-induced neurite outgrowth (PubMed:16481321). Promotes Src family kinase (SFK) signalling by regulating the subcellular localization of CSK, a negative regulator of these kinases, leading to the regulation of cell morphology and motility by a CSK-dependent mechanism (PubMed:27116701, PubMed:21873224). Acts as a critical coactivator of Notch signaling (By similarity).[UniProtKB/Swiss-Prot Function]