

## Product datasheet for **MG225739**

### Pard3 (NM\_033620) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Pard3 (NM_033620) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pard3
Synonyms:	AA960621; AI256638; Asip; D8Ertd580e; Par-3; Par3; Pard-3; Pard3a; Phip
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225739 representing NM_033620 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAAGTGACCGTGTGCTTCGGGAGGACCCGGGTGGTCGTGCCGTGCGGAGATGGCCGCATGAAAGTTT  
TCAGCCTCATCCAGCAGGCGGTGACCCGCTACCGGAAGGCCGTGGCCAAGGATCCAACTACTGGATACA  
GGTGCATCGTTGGAGCATGGAGATGGAGGATTCTAGACCTGGATGACATCCTCTGTGACGTTGCTGAT  
GACAAAGACAGACTGGTAGCAGTATTTGATGAACAGGATCCCCACCATGGAGGAGATGGTACCAGCGCCA  
GCTCCACGGGAACCCAGAGTCCAGAGATATTCGGCAGTGAGCTGGGCACCAACAATGTTTCTGCTTTTCA  
GCCTTATCAAGCCACAAGTAAAATTGAGGTCACGCCTTCAGTTCTTCGGGCAAATATGCCTTTCATGTC  
CGCCGGAGCAGCGACCCAGCTTTAACTGGCCTTCCACTTCTGTGAGTATAACAATTTTCTCAGAGG  
AGCCCTCCAGGAAAAACCCACCCGCTGGTCCACGACAGCTGGCTTCTCAAGCAGAACCCGCTGGAAG  
TCCCAAACTGCGACAGGAAGAAAGATGAAAACACAGAAAGCCTCCACGGGATCCAGTAGCTGGTCC  
AACCAGTCCAGCGAGACAACGCCCGCTCCTCCTGAGCGCCAGCCACCAATGGTAGACCGGTGGCTGG  
AGAAGCAAGAACAGGATGAGGAAGGCACAGAAGAAGACAGCAGCCGAGTGGAGCCGGTTGGACATGCTGA  
TACCGGATTGGAGAACATGCCAACTTTTCCCTCGATGATATGGTAAAGCTCGTACAAGTCCCAACGAT  
GGAGGGCCCTGGGAATCCATGTAGTGCCTTTCAGTGTGCGAGGGCGCAGAACATTTGGGTTGTTAGTGA  
AGCGGTTGGAGAAAGCCGTAAGGCTGAGCAAGAAAACCTTTTCCATGAGAATGACTGCATTGTGAGGAT  
TAACGATGGAGATCTTCGAAACAGAAGATTTGAGCAAGCACAACATATGTTCCGCCAAGCTATGCGTGCG  
CGTGTCATTTGGTTCCATGTGGTCCCTGCAGCAAAACAGGAGCAATATGAACAACGTCCCAACGCGAGA  
AGAACAACACTCCCGAGCCGCTTCAGCCCTGACAGCCACTGTGTGGCCAACAGGAGTGTGGCCAACAA  
TGCCCTCAAGCATTGCCAGAGCACCCAGACTGAGTCAGCCACCCGAGCAGCTGGATGCTACCCCCGA  
CTACCTCATAGTGTACGCCTCAACCAAAACCCCGAGCCCGGCCTTGGCTCCACCCAGTGTGCTTA  
GTACCAACGTAGGCAGTGTGTACAACACGAAGAAAGTAGGCAAGAGGCTCAACATCCAGCTTAAGAAAGG  
TACAGAAGGACTGGGATTCAGCATCACCTCCCGGACGTACCATAGGTGCTCAGTCCCATTTATGTC



[View online »](#)

AAGAATATCCTTCCTCGAGGGGCTGCCATTGAGGATGGCAGACTCAAGGCAGGAGACCGGCTAATAGAGG  
TCAATGGAGTAGATTTAGCAGGCAAATCCCAGGAGGAAGTTGTTCCCTGTTGAGAAGCACCAAGATGGA  
GGGACTGTGAGCCTTCTGGTCTTTCGTGAGGAAGAGGCTTCCACCCAAGGAAATGAATGCTGAACCA  
AGCCAGATGCAGACTCCAAAAGAAACGAAAGCTGAAGATGAGGACGTTGTTCTCACACCCGATGGTACCA  
GGGAGTTTCTGACTTTTGAAGTCCACTGAATGACTCAGGATCTGCAGGGCTTGGTGTGAGTGTCAAGGG  
GAACCGTTCCAAAGAGAACCACGCAGATTTGGGGATCTTCGTTAAATCCATTATCAATGGTGGAGCTGCA  
TCTAAAGATGGAAGGCTGAGGGTAAATGACCAGCTGATAGCTGTGAATGGAGAATCTCTACTGGGCAAAG  
CCAACCAGGAAGCCATGGAGACTCTACGGAGGTCCATGTCCACCAGGGCAACAAGCGTGGCATGATCCA  
GCTCATTGTGGCGAGGCGGATCAGCAGATGTAACGAGCTGCGGTCTCCTGGGAGCCCTGCTGCACCTGAG  
CTGCCATCGAGACAGAACTGGATGACCGAGAACGCAGGATCTCACACTCCCTCTACAGTGGGATCGAGG  
GGCTGGATGAGTCGCCCACCAGGAACGCAGCACTGAGCAGGATAATGGGTAAATGCCAGCTGTCCCCAC  
GGTGAACATGCCTCACGATGACTGTGATGATTGAAGATGACAGGCTGCCTGTGCTCCCTCCTCACCTC  
TCTGACCAGTCTCCTCCAGCTCCCATGATGACGTTGGATTATAATGACAGAAGCAGGCACGTGGGCCA  
AAGCTACCATCAGTGACTCAGCCGACTGCTCATTGAGTCCAGATGTTGATCCGGTTCGCTTTTCAACG  
GGAAGGATTTGGACGCCAGAGTATGTGAGAAAACGCACAAAGCAATTTTCAGATGCCAGTCAATTGGAT  
TTGCGTAAAACACGAAAAATCAAAAAGCATGGATTTAGGTATAGCTGACGAGACTAAACTCAATACAGTGG  
ATGACCAGAGAGCAGGCTCTCCCAGTAGAGATGTGGGACCCTCCTTAGGTCTGAAGAAATCTAGCTCCTT  
AGAAAAGTCTGCAGACCGCTGTGCGCCGAGGTGACGCTGAACGGGAACATTCTTTCCACCGCCCTCGGCCA  
CGAATCATCCGGGAAGGGGCTGCAACGAAAGCTTCCAGAGCCGCAATTGACAAGTCTACGACAAGCCCA  
TGGTTGATGATGACGACGAAGGCATGGAGACCTTGAAGAAGACACAGAGGAAAGCTCGAGGTGAGGGAG  
GGAGTCCGTGTCCACGTCCAGCGATCAGCCTTCTTCTTCTGGAGAGGCAAATGAATGGAGACCCAGAG  
AAAAGGGACAAGACAGAGAGGAAAAAGGCAAAAGCCGAAAGGATAAGAAGAAAGACCCGAGAGAAGGAGA  
AGGATAAACTGAAAGCCAAGAAGGGGATGCTGAAAGGCTTGGGGGACATGTTGAGTTTGGCAAACATCG  
AAAAGATGACAAGATGGAAAAAATGGGTGGAATAAAAAATCCAGGATTCTTTCACCTCAGAAGAGGACAGG  
GTGCGGATGAAGGAAGAACAGGAGAGGATTCAAGCCAAAACCTCGAGAGTTTAGGGAGCGGAAGCCCGAG  
AGCGTGACTATGCAGAGATCCAAGATTTCCATCGGACGTTTGGCTGTGATGACGAGTTGCTGATGGGGG  
CATGTCATCCTATGAAGGCTGCTTGGCTCTCAATGCCAGACCCAGAGCCCAAGAGAAGGGCACCTGATG  
GACACTTTGTATGCCAAGTAAAGAAACCTCGGAGCTCCAAACCTGGAGACAGCAATCGATCCACTCCTA  
GCAACCATGACCGGATACAGCGTCTACGGCAAGAGTTCAGCAAGCCAAACAGGATGAGGATGTGGAAGA  
CCGGCGCCGTACCTACAGCTTTGAGCAATCTTGGTCCAGCTCGCGGCCGGCATCGCAGAGTGGTCCGGAC  
TCGGTGTCCGTGGAGTTCAAGTACAACGGCAGCGCCAGGAGGAGCGAGAGACTTCCAGCAGGCCACGC  
GCCAGTACAGCTCACTGCCAAGCAAAGCAGGAAGAATGCCAGCTCCATATCACAGGATTCTGGGAACA  
GAACTACGCCCTGGTGAAGGCTTCCAGAGTGCCAAGGAGAACCCAGGTATTCCAGTTACCAGGGCTCA  
AGGAACGGCTATCTAGGCGGGCACGGCTTAAATGCCAGGGTATGCTGGAGACCCAGGAGCTTCTCCGAC  
AGGAACAGAGGCGGAAAGAGCAGCAGCTGAAGAAGCAGCTCCAGCTGATGGAGTCAAGAGGGCCCTCCG  
GCAAGATGTGCCCCCTTCTCCATCTCAGGTGGCTAGGCTGAACAGACTGCAGACACCCGGAAGGGCGG  
CCCTTCTACTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG225739 representing NM\_033620  
 Red=Cloning site Green=Tags(s)

```

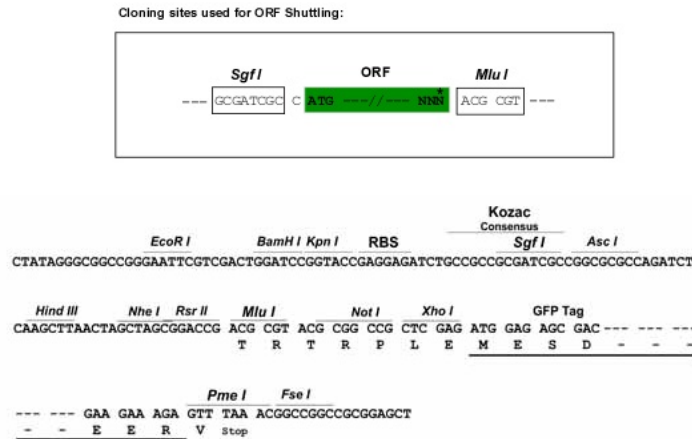
MKVTVCFGRTRVVVPCGDGRMKVFSLIQQAVTRYRKAVAKDPNYWIQVHRLHEHGDGGILDLDLDDILCDVAD
DKDRLVAVFDEQDPHHGGDGTASSTGTQSPEIFGSELGTNNVSAFQPYQATSEIEVTPSVLRANMPLHV
RRSSDPAL TGLSTSVSDNNFSSEEPSRKNPTRWSTTAGFLKQNTAGSPKTCDRKKDENYRSLPRDPSWS
NQFQRDNARSSLASHPMVDRWLEKQEEDSRRVEPVGHADTGLEMPNFSLDDMKLVQVPND
GGPLGIHVVPFSARGGRTLGLLVKRLEKGGKAEQENLFHENDCIVRINDGDLRNRFEQAQHMFRQAMRA
RVIWFHVVPAANKEQYEQLSQREKNNSPGRFSPDHCVANRSVANNAPQALPRAPRLSQPPEQLDAHPR
LPHSAHASTKPPAAPALAPPSVLSTNVGSVYNTKKVGRKLNILKKGTEGLGFSITSRDVTIGGSAPIYV
KNILPRGAAIQDGRKAGDRLIEVNGVDLAGKSQEEVVSLLRSTKMEGTVSLLVFRQEEAFHPREMNAEP
SQMQTPKETKAEDVDVLPDGTREFLTFEVPLNDSGSAGLGVSVKGNRSKENHADLGIFVKSIIINGGAA
SKDGRRLVNDQLIAVNGESLLGKANQEAMETLRRSMSTEGNKRGMIQLIVARRISRCNELRSPGSPAPE
LPITETLDDRERRISHSLYSGIEGLDESPTRNAALSRIMGKQQLSPTVNMPHDDTVMIEDDRLPVLPPHL
SDQSSSSSHDDVGFIMTEAGTWAKATISDSADCSLSPDVPVLAQREGFGRQSMSEKRTKQFSDASQLD
FVKTRKSKSMDLGIADETKLNVTDDQRAGSPSRDVGPSLGLKKSSLESLQTAVAEVTLNGNIPFHRPRP
RIIRGRGCNESFRAAIDKSYDKPMVDDDEGMETLEEDTESSRSGRESVSTSSDQPSYSLERQMNGDPE
KRDKTERKKDKAGDKKKDREKEKDKLAKKGMKGLGDMFRFGKHKDDKMEKMGRIKIQDSFTSEEDR
VRMKEEQERIQAKTREFRERQARERDYAEIQDFHRTFGCDELLEYGGMSSYEGCLALNARQSPREGHLM
DTLYAQVKKPRSSKPGDSNRSTPSNHDRIQRLRQEFQQAQDEDEDVDRRTYSFEQSWSSSRPASQSGRH
SVSVEVQVQRQREERESFQQAQRQYSSLPRQSRKNASSISQDSWEQNYAPGEGFQSAKENPRYSSYQGS
RNGYLGGHGFNARVMLETQELLRQEQRRKEQQLKKQPPADGVRGPFRRQDVPPSPSQVARLNRLQTPEKGR
PFYS
  
```

TRTRPLE - GFP Tag - V

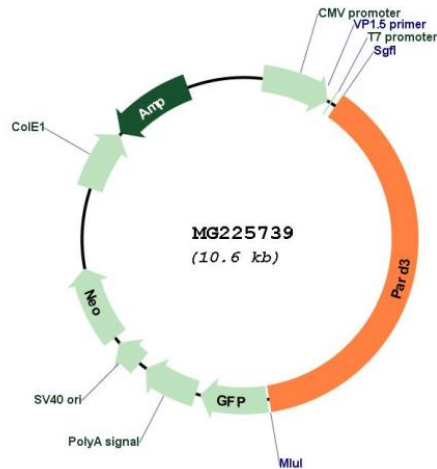
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



Plasmid Map:



ACCN: NM\_033620

ORF Size: 3999 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\\_033620.2](#), [NP\\_296369.2](#)

RefSeq Size: 5830 bp

RefSeq ORF: 4002 bp

Locus ID: 93742

Cytogenetics: 8 74.66 cM

**Gene Summary:**

Adapter protein involved in asymmetrical cell division and cell polarization processes (By similarity). Seems to play a central role in the formation of epithelial tight junctions (By similarity). Targets the phosphatase PTEN to cell junctions (By similarity). Association with PARD6B may prevent the interaction of PARD3 with F11R/JAM1, thereby preventing tight junction assembly (PubMed:11839275). The PARD6-PARD3 complex links GTP-bound Rho small GTPases to atypical protein kinase C proteins (By similarity). Required for establishment of neuronal polarity and normal axon formation in cultured hippocampal neurons (By similarity). Involved in Schwann cell peripheral myelination (PubMed:21949390). [UniProtKB/Swiss-Prot Function]