

Product datasheet for **RR200582**

Gga3 (NM_001108304) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gga3 (NM_001108304) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gga3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide
Sequence:

>RR200582 representing NM_001108304
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGGAGGCGGAAGGGGAGAGCTGGAATCCTGGCTGAATAAAGCTACCAATCCTTCCAACCGCCAGG
AAGACTGGGAATACATCATTGGCTTCTGTGATCAGATCAACAAAGAGCTTGAAGGGCCCCAGATTGCTGT
GCGACTCCTGGCTCACAAGATCCAGTCTCCACAGGAATGGGAGGCAAGTGCAGGCCCTCACGGTGGTGGAG
GCGTGTATGAAGAATTGCGGCAGGAGACTTCATAATGAAGTGGGAAAGTCCGATTTTTGAATGAATTAA
TCAAAGTCGTCTCTCAAAGTACTTGGGAGACAGGGTGTCTGAAAAGGTGAAGGCTAAGGTCATCGAGTT
GCTTTTTAGCTGGACACTGGCCTTGCCGGAAGAAGCAAAGATCAAAGACGCCTACCATATGTTGAAGAGA
CAAGGCATAGTGCAGTCGGACCCCCCTATCCCCATGGACAGAACACTGATCCCCTCTCTCCACCTCGTC
CCAAAAACCTGTTTTGATGATGAGGAAAAATCCAAGCTTTAGCCAAGCTGCTGAGAAGCAAGAACCC
AGATGACTTACAAGAAGCCAACCAACTCATCAAGTCCATGGTGAAGGAAGATGAGGCGCGCATCCAGAAA
GTGACCAAGCGCCTACACACGTTGGAGGAAGTTAACAACAATGTCAAGCTGCTCCATGAGATGCTTCTTC
ACTACAGCCAAGAGTTTCATCAGAGGCCGACAAGAGCTCATGAAGGAGCTCTTTGATCGTTGTGAGAA
TAAGAGACGGACATTATTTAAACTAGCCAGTGAGACAGAAGACAATGACAATAGTTTGGGGGACATCCTG
CAGGCCAGTGACAACCTGTCCAGGGTCACTCAACTTTACAAAACAATTATTGAAGGGCAGATCATCAATG
GTGAGGTGACCACCTCAACCGTGCCTGACTCTGAAGGAAATAGTCACTGCGGTAACCAAGGGCCCTCAT
CGACCTTGCCGAGTTGGACACCCCCAGCAGCTCATCCCCAGTGTGGCCCCAGCACCTGCCCCACCCACC
TCAGGCATCCCTATCCTTCCCCACCTCCCCAACCTCCGGGCCCTCCACGAAGCCGTTTATCCAGCCAGG
CTGAGGCTCCCTCAGGGCCTGACAGCACGAACAATGCCCTCTCCTTGTGGATGAGGAGCTCCTCTGTCT
AGCTCCTGTGGTCCCAGCGAGCGCAGTGACCCACAGCACTGGTTCCCTTTACGTTCTCTTCTGGACCTGCC
CCAGCCTTGTTCCAAAGGCTGAGCCCGAAGGCCAGAGTACCCAGCTCCAGCATCTCACACCGCCTGG
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TCTGGGCCACCGCCTCCCCACTGTTCTGCTCTACCCAGCCAGGCCTCTCCTGCCCTTCTCAACT
GGGCCCGAAGTCTCTTCCAGTCGCCAGCCTTCCAGTCCCAAGGCAGCCCTCAGAAGGGCCAGAGC
TCTCCTGGCTAGTGTCCATGTGCCCTGGAATCGATCAAGCCTAGCAGTGCCCTTCTGTGACAGCCTA
TGATAAAATGGCTTCCGCATCCTTTTCCACTTTGCTAAGGAGTGTCCGCCAGGACGGCCTGATGTGCTG
GTGGTGGTGGTTCCATGCTGAATACAGCTCCCTTGCCAGTCAAGAGTATAGTGCTACAGGCCCGAGTGC
CCAAGTCAATGAAAGTGAAGTTGCAGCCACCCTCTGGGACAGAATTTCTCCATTTAGTCCCATCCAGCC
ACCTGCAGCCATCACCCAGGTATGCTGCTGGCCAATCCAATGAAGGAAAAGGTACGGCTTCGGTATAAA
TTGACCTTTGCTCTGGGGGAGCAGCTGAGCACAGAGCTGGGTGAAGTGGACCAGTTTCTCCTGTGGAGC
AGTGGGGGAACCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR200582 representing NM_001108304
 Red=Cloning site Green=Tags(s)

MAEAEGESLESWLNKATNPSNRQEDWEYIIGFCDQINKELEGPQIAVRLLAHKIQSPQEWEAVQALTVLE
 ACMKNCGRRLHNEVGKFRFLNELIKVVSPKYLGRVSEKVKAKVIELLFSWTLALPEEAKIKDAYHMLKR
 QGIVQSDPPIPMDRTLIPSPPPRPKNPVFDDEEKSKLLAKLLRSKNPDDLQEANQLIKSMVKEDEARIQK
 VTKRLHTLEEVENNVKLLHEMLLHYSQEFSSADKELMKELFDRcenKRRTLFLKLAsetEDNDNSLGDIL
 QASDNLsrVINSYKTIIEGQIINGEVTTSTVPDSEGNshCGNQGALIDLAEldTPSSSSPVLAPAPAPT
 SGIPILPPPQTSgPPRSRSSSQAEAPSGPDSTNNALSLlDEELLCLAPVVPASAVTHSTGSFTFSSGPA
 PALVPKAEPEGPeySSSIshRLDALDQLLEEAKVTSGLVKPVSCFSPGPTASPLLPASTPARPLLPFST
 GPGSPLFQSPAFQSQGSPQKGPelSLASVHVPLESIKPSsalPVTAYDKNGFRILFHFAKecPPGRPDVL
 VVVVSMlNTAPLpVKSIVLQAaVPKSMKVKLQPPSGTeLSPFSPIQPPAAITQVMllANPMKEKvRLRYK
 LTFALGEQLSTELGEVDQFPPVEQWGNL

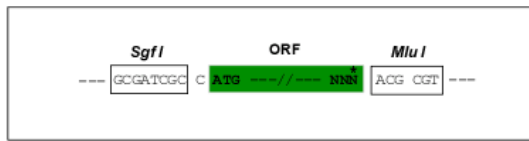
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

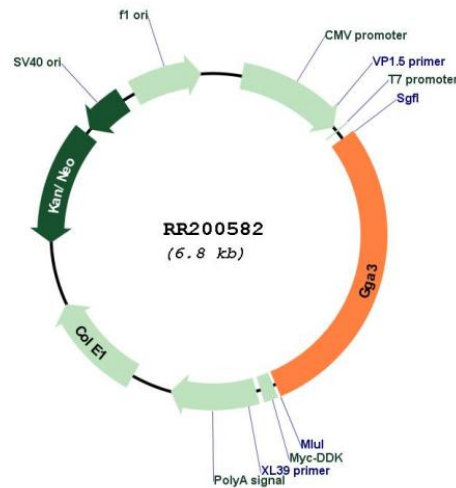
Cloning Scheme:

SgfI-MluI

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001108304

ORF Size: 1974 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_001108304.1](#), [NP_001101774.1](#)

RefSeq Size: 4565 bp

RefSeq ORF: 1977 bp

Locus ID: 360658

Cytogenetics: 10q32.1

MW: 71.7 kDa

Gene Summary: Plays a role in protein sorting and trafficking between the trans-Golgi network (TGN) and endosomes. Mediates the ARF-dependent recruitment of clathrin to the TGN and binds ubiquitinated proteins and membrane cargo molecules with a cytosolic acidic cluster-dileucine (DXXLL) motif. Mediates export of the GPCR receptor ADRA2B to the cell surface. Involved in BACE1 transport and sorting as well as regulation of BACE1 protein levels. Regulates retrograde transport of BACE1 from endosomes to the trans-Golgi network via interaction through the VHS motif and dependent of BACE1 phosphorylation. Modulates BACE1 protein levels intedepently of the interaction between VHS domain and DXXLL motif through recognition of ubiquitination (By similarity). Key player in a novel DXXLL-mediated endosomal sorting machinery to the recycling pathway that targets NTRK1 to the plasma membrane (PubMed:26446845).[UniProtKB/Swiss-Prot Function]