

Product datasheet for **RG207340**

GPRIN1 (NM_052899) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	GPRIN1
Synonyms:	GRIN1
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG207340 ORF sequence, **codon optimized**.
Due to the complexity of NM_052899, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGACACAGCCGAAGATCCCGCTTGGCTTCAGTTGCTCCAGAAAGATTCTCACCCCGGGACCTCGCC
CCACGGCTTTTTCTGCCACAGGATGGGTCTTGGGCGCCGGCAGCTCCGCCATGAGAGACTACTGTCC
TTCCCAGCAGAAGGCATCCCCTGCGCCCCCAGGCATACCCAGACCAGTCCCAGGCATGGAGTCCCGC
CATCGCTCCCCTAGCGGAGCAGGAGAGGGAGCCAGCTGCTCCGATGGACCGCGCGGTAGTTTGGCATGCC
CTTCACCAACCTGCTTTAGCCACAGGAAAGTCCAGCAAAGAGACACTCGAAGCACACGGCGCTAGCAT
TTCTGTTACACAGAGGCAACTACCTCCGGAAGCCTGAACCTGTCTCCTCAGTAAAAACCGAGCAAAA
TCCAGCGACGACCGAAATCCTATGTTTCTTGAGAAGATGGATTTTAAGTCCTCAAGCAAGCTGATAGCA
CTAGCATCGGCAAGGAGGATCCAGGTTTCATCCCGGAAAGCCGACCTATGTTTACAGGAAAGGCTGAGCC
AGAAATCCTGGGCAAGGGTGACCCCGTTGCACCCGGCCGGATGGACCAATGACCGTGAGAAAGGAGGAC
TTGGGGTCACTGGGTAAGGTCGATCCTTTGTGTTCAAGTAAACTTACACCGTGAGCCCTAGAAAGGAAG
ATCCCGGAAGCCTTCGCAAGTTGATCCCGTCAGTAGCGACAAAGTCGACCCCGTATTTCCAGGAAAGA
GGAACCTAGATATAGTGGGAAAGAACCCCGTGAGCAGCGAAAAGGTGCCCCCTACCTCCGCGGAAAAA
GTTGATCTGGTCTCAGTGGAAGCGAGATCCAGGCCCCAGTGGAAGGCGGATCCCATGCCCTGGAGA
GCATGGACAGCGCCTCTACAGGCAAAACCGAGCCCGGTCTGCTGGGGAAGCTTATACCTGGGAGCAGCGG
TAAGAACGGACAGTGTATCCGGTACAGGGGCCAGGCTCTTTGGGACGCTCGACCCACGTGTTTG
GGGATGGCAGACCTGCTAGTGTGGGAATGTTGAAACCGTCCAGCTACTAAGGAAGACTCCCGCTTTC
TCGGGAAAAATGGATCCAGCAAGCTCCGGCGAGGGTCGGCCGGTATCAGGCCATACGGACACAACCTGCTTC
TGCCAAAACAGACCTCACTTCATTGAAGAAGTGGACCCCATGAGCTCTGGCAAAGTGGACCTGTAAGT



CTGGGCAAGATGGACCAATGTGTTCCGGCAAACCTGAGCTGCTCTACCAGGCCAGGCAGAGCGCTCT
CTGTAGGGAAGCTGGAAGCTGTGAGCCCTGGCAAGGAAGACCCTGTTAGTTCCAGGCGGGAGGATCCCAT
AAGTGTGTCAGCCGAAAACTTCTCCGAAAAAGTGAACCCGGAATCTCCGAAAGACAAATCCGGTT
TCAAGCGGCCCGCGGACCCACGCTCCCTGGGGACAGCTGGACCCCAAGTGCTGTGAAAGCCGAGCCCG
CTACTGGAGGTAAGGGAGATCACTCTCATCCGAGAAAGCAGGACTGGTGGCTTCCGGGAAAGCCGCCCC
CACTGCCAGCGGGAAGCAGAGCCTCTGGCCGTCGAAAGAGGACCCAGTGTCCAAGGGAAGAGTGAT
GCAGGCCCTAGCGGCCAGGGGACTCTGTGTCAATAGGAAAGTGGTGTCAACTCTGGCAAACAGTCC
CGGTCCCCAGCGGCAAGGTAGACCCAGTTTCCCTGGGCAAGGCAGAGGCCATTCCAGAGGGAAGGTTGG
AAGCCTTCCACTCGAAAAAGGATCCCCCGTCACAACAACCAAGGCCGACCCCGAGCGAGTGGAAGGCC
CAGCCACAGAGTGGCGGCAAGGCCGAAACCAAACTCCCTGGACAGGAGGGCGTGCAGCGCTGGAGAGG
CAGGCGCAGTTTGTGTAAGAAAGAAACACCTCAGGCCAGTGAGAAGTGGACCCTGGATCATGCCGAAA
GGCGGAACCACTGGCATCAGGTAAGGGGAGCCCGTTTCTCTGGGAAAGGCAGATAGCGCACCTTCTCGG
AAGACTGAGTCCCCAAGCTTGGGTAAGGTTGTGCCACTCAGCCTGGAAGAACTAAACCCAGCTCATCTT
CTCGCCAAATTGGACAGAAAGCGCTGGGATCTGCCCGCTCCCAGAAGGGGCACGCGTTCTGAGGGTAG
AGTGGAGCCCAAGGCTGAACCAAGTGTCTTACAGAGGCAAGTTCCTCGGGCAAAAGGATCTCAGGGCT
GCCGGCGCCGAACGCTACCATGTCCCGAGGCCGCGGCCCTCCCCAGGCCCTCGACCCCGCGATAACT
TTACTAAGGCCCTTCTTGGGAGGCCAGTGTCTCCCCACCTCCCAGAGAAGACGCCGACCCAGGCCGG
CGCCAGGCCTGTGTGTCCGTGGCTGTAGTCCCATGTCCCCTCAAGACGGTGCAGGGGGATCTGCATT
TCCTTTAGGCCGCCCAAGAGCCCTTCTCCCCAGCCGCGCAGCGCGGCTTTCAGGTACGCTCG
GAGCCGCGGAGACGCGCTCCGTTGCGACAGGACCTATGACCCCCAAGCTGCCGCACCAACAGCCTTCCC
TGAAGTGCGCGTGCAGGAGGAGTGCCTTGGCCGCGCAGTGGCACCCCCGAACCCGAGAGCCAGTG
AGGGATGTCTCATGGGACGAAAAAGCATGACATGGGAAGTCTACGGGGCCGCATGGAAGTTGAAGTCC
TGGGTATGGCATTGAGAAGCATCTGGAGCGCCAGATTGAGGAGCACGGCAGGAGGAGCCCGGCCCG
CCCCCGGCCGCGCGGCCGCGGCCAGGCTGTGGCTCAGTGAGGACTGCGCTCCTGATGGAGCGGCT
AAACGGCCCCCTGGCCTGTTTAGAGCCCTGCTGCAGAGCGTCCGACGGCCACGGTGTGCAGCAGGGCAG
GGCCTACTGCGGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG207340 representing NM_052899
Red=Cloning site Green=Tags(s)

MDTAEDPAWLQLLQKDSSPPGPRPTAFFCPQDGSLLAGSSAMRDYCPSSQKASAPPRHTPDQSPGMESR
HRSPSGAGEGASCDGPRGSLACPSPTCFSPQESPSKETLEAHGASISGTPEATTSGKPEPVSSVKTEPK
SSDDRNPMFLEKMDFKSSKQADSTSIGKEDPGSSRKADPMFTGKAEPEILGKGDPVAPGRMDPMTVRKED
LGSLGKVDPLCSSKTYTVSPRKEDPGSLRKVDPVSSDKVDPVFPKRKEEPRYSKKEHPVSSEKVPAPSAEK
VDLVLGKRDPPSGKADPMPLESMDSASTGKTEPGLLGLKIPGSSGKNPVSSTGAPGSLGRLDPTCL
GMADPASVGNVETVPATKEDSRFLGKMDPASSGEGRPVSGHTDITASAKTDLTSLKNVDPMSGKVDPV
LGKMDPMCSGKPELLSPGQAERVSVKAGTVSPGKEDPVSSRRDPTISAGSRKTSSEKVNPESSGKTNPV
SSGPGDPRSLGTAGPPSAVKAEPATGGKGDPLSSEKAGLVASGKAAPTASGKAEPVAVGKEDPVSKGKAD
AGPSGGQDVSIGKVVSTPGKTVVPVSGKVDPVSLGKAEIPEGKVGSLPLEKGSPTTTKADPRASGKA
QPQSGGKAETKLPQEGEAAAPGEAGAVCLKKETPQASEKVDPGSCRKAEPVSLGKADSAEPSR
KTESPSLGKVVPLSLEKTKPSSSRQLDRKALGSARSPEGARGSEGRVEPKAEPVSSTEASSLGQKDLA
AGAERSPCPEAAAPPPGPRTRDNFTKAPSWEASAPPPREDAGTQAGAQCVCVAVSPMSPQDAGGSAF
SFQAAPRAPSPPSRRDAGLQVSLGAAETRSVATGPMTPQAAAPAFPEVVRVPGSALAAVAPPEPAEPV
RDVSWDEKGMTWEVYGAAMEVEVLGMAIQKHLERQIEEHGRQGAPPPAARAGPGRSGSVRTAPPDGA
KRPPGLFRALLQSVRRPRCCSRAGPTAE

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_052899

ORF Size: 3024 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

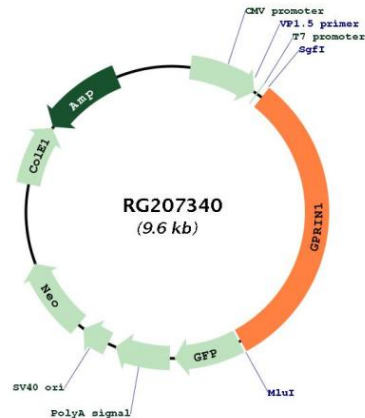
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_052899.2</u> , <u>NP_443131.2</u>
RefSeq Size:	4234 bp
RefSeq ORF:	3027 bp
Locus ID:	114787
UniProt ID:	<u>Q7Z2K8</u>
Cytogenetics:	5q35.2
Gene Summary:	May be involved in neurite outgrowth.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG207340