

## Product datasheet for **RG235342**

### Ankyrin G (ANK3) (NM\_001204403) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ankyrin G (ANK3) (NM_001204403) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ANK3
Synonyms:	ANKYRIN-G; MRT37
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG235342 representing NM_001204403 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTCCTCCGCTCCTCCTCTCCCGGGCACCGAGGACTCCGCTCCTGCCAGGGTGGCTTTGGAT  
CAGATTATTCACGAAGCTCTAGAAAGTCTGATGCCAATGCAAGTACTTAAGAGCAGCTCGAGCTGGACA  
CCTTGAAAAGGCCCTCGACTACATAAAAAATGGAGTTGACATCAACATTTGCAATCAGAATGGGTTGAAC  
GCTCTCCACCTTGCTTCCAAAGAAGGCCATGTAGAGGTTGTTTCTGAGCTGCTGCAGAGAGAAGCCAATG  
TGGATGCAGCTACAAAGAAAGGAAACACAGCATTGCACATCGCATCTTTGGCTGGCAAGCAGAGGTGGT  
AAAAGTCTTGTTACAAATGGAGCCAATGTCAATGCACAATCTCAGAATGGTTTCACGCCATTGTATATG  
GCAGCCCAGGAAAATCACCTGGAAGTTGTCAAGTTTCTTCTTGACAATGGTGAAGCCAGAGCCTAGCCA  
CAGAGGATGGCTTACACCATTGGCAGTGGCTTTGCAACAAGGTCACGACCAAGTCGTTTCGCTCCTGCT  
AGAGAAATGACACCAAGGAAAAGTGCCTCTCCAGCTCTTCATATCGCGGCCGAAAAGACGACACGAAA  
GCCGCCGCCCTGCTGCTGCAGAAATGACAACAATGCAGATGTGGAATCAAAGAGTGGCTTCACTCCGCTCC  
ACATAGCTGCTCACTATGGAAATATCAATGTAGCCAGTGTGCTGTTAAACCGAGCGGCTGCTGTGGATTT  
CACCGCAAGGAATGACATCACTCCTTTACATGTTGCATCAAAAAGAGGAAATGCAAAATATGGTAAACTA  
TTGCTCGATCGAGGAGCTAAAATCGATGCCAAAACAGGGATGGTCTGACACCCTGACACTGTGGAGCAA  
GGAGTGGCCACGAGCAGGTGGTAGAAATGTTGCTTGATCGAGCTGCCCCATTCTTTCAAAAACCAAGAA  
TGGATTATCTCCATTGCACATGGCCACACAAGGGGATCATTTAAACTGCGTCCAGCTTCTCCTCCAGCAT  
AATGTACCCGTGGATGATGTCACCAATGACTACCTGACTGCCCTACACGTGGCTGCCACTGTGGCCATT  
ACAAAGTTGCCAAGGTTCTTTGGATAAGAAAGCTAACCCCAATGCCAAAGCCCTGAATGGCTTTACCCC  
TCTTCATATTGCCTGCAAGAAGAATCGAATTAAGTAATGGAACCTCTTCTGAAACCGGTGCATCCATC  
CAAGCTGTAACCGAGTCGGGCCCTACCCCAATCCATGTTGCTGCCTTCATGGGCATGTAATATTGTAT  
CACAATAATGCATCATGGAGCCTACCAAACACCACCAATGTGAGAGGAGAAAACAGCACTGCACATGGC  
AGCTCGCTCCGCCAAGCTGAAGTTGTGCGGTATCTGGTACAAGACGGAGCTCAGGTAGAAGCTAAAGCT



[View online »](#)

AAGGATGACCAAACACCACTCCACATTTAGCCCGACTGGGAAAAGCAGACATAGTACAACAGCTGTTGC  
 AGCAAGGGGCATCTCAAATGCAGCCACAACCTTCTGGGTACACCCCACTTCACTTTCCGCCGAGAGGG  
 GCATGAGGATGTGGCCGCTTCTTTGGATCATGGAGCGTCTTATCTATAACAACAAAGAAAGGATTT  
 ACTCCTCTTATGTGGCAGCAAAATATGGAAAGCTTGAAGTCGCCAATCTCTGTACAGAAAAGTCAT  
 CTCCAGATGCTGCTGGGAAGAGCGGGCTAACACCACTGCATGTAGCTGCACATTACGATAATCAGAAAGT  
 GGCCCTTCTGCTTTTGGACCAAGGAGCCTCACCTCACGCAGCCGAAAGAATGGTTATACGCCACTGCAC  
 ATCGCTGCCAAAAGAACCAGATGGACATAGCGACAACCTGCTGGAATATGGTGTGATGCCAACGCAG  
 TTACCCGGCAAGGAATTGCTTCCGTCCATCTCGCAGCTCAGGAAGGGCAGGTGGACATGGTGTCCGCTGCT  
 CCTCGGTAGAAATGCGAATGTGAACCTGAGCAATAAGAGCGGCCTGACCCCACTCCATTTGGCTGCTCAA  
 GAAGATCGAGTGAATGTGGCAGAAGTCTCGTAAACCAAGGGGCTCATGTGGACGCCAGACAAAGATGG  
 GATACACACCACTGCATGTGGGCTGCCACTATGGAAATATCAAGATTGTTAATTTCTGCTCCAGCATT  
 TGCAAAAGTTAATGCCAAAACAAAGAATGGGTATACGCCATTACATCAAGCAGCACAGCAGGGGCATACG  
 CATATAATAAATGTCTTACTTCAGAACAACGCCTCCCCAATGAACCTACTGTGAATGGGAATACTGCC  
 TTGGCATTGCCCGGCCTCGGTACATCTCAGTAGTGGACACCCTGAAGATAGTGACCGAAGAGACCAT  
 GACCACAACACTGTGCAGAGAAGCACAAAATGAATGTTCCAGAAACGATGAATGAAGTCTTGATATG  
 TCTGATGATGAAGTTCGTAAGCCAATGCCCTGAAATGCTCAGTGATGGCGAATATATCTCAGATGTTG  
 AAGAAGGTGAAGATGCAATGACCGGGACACAGACAAATATCTTGGGCCACAGGACCTTAAGGAATTGGG  
 TGATGATTCCTGCCTGCAGAGGGTTACATGGGCTTTAGTCTCGGAGCGGTTCTGCCAGCTCCGCTCC  
 TTCAGTTCGGATAGGCTTACACCTTGAACAGAAGCTCCTATGCACGGGACAGCATGATGATTGAAGAAC  
 TCCTTGTGCCATCCAAGAGCAGCATCTAACATTCACAAGGGAATTTGATTGAGATTCTCTTAGACATTA  
 CAGCTGGGCTGCAGACACCTTAGACAATGTCAATCTTGTTCAGCCCACTTCACTTCTGGGTTTCTGGTT  
 AGCTTTATGGTGGACGCGAGAGGGGGCTCCATGAGAGGAAGCCGTCATCACGGGATGAGAATCATCATT  
 CTCCACGCAAGTGTACGGCCCCACTCGAATCACCTGCCGTTTGGTAAAGAGACATAAACTGGCCAAACC  
 ACCCCCCATGGTGAAGGAGAGGGATTAGCCAGTAGGCTGGTAGAAATGGGTCTCGCAGGGGCACAATTT  
 TTAGGCCCTGTACATAGTGAAATCCCTCACTTTGGGTCCATGAGAGGAAAAGAGAGAGAACTCATTGTT  
 TTCGAAGTGAATAAGTGAACCTTGAAGGAGCATCAGTTTGACAGCAAAAATGAAGATTTAACCGAGTT  
 ACTTAATGGCATGGATGAAGAATTGATAGCCAGAAGAGTTAGGGAAAAAGCGTATCTGCAGGATTATC  
 ACGAAAGATTTCCCCAGTATTTTGCAGTGTTTCCCGGATTAAGCAGGAAAGCAACCAGATTGGTCTG  
 AAGGTGGAATTCTGAGCAGCACACAGTGCCCTTGTTCAGCATCTTCCAGAGGGTGCCTAACTAA  
 AAGAATTCGAGTGGGCTCCAGGCCAGCTGTTCCAGATGAAATGTGAAAAAGATCCTTGAAACAAA  
 GCAACTTTTAGCCCAATTGTCACTGTGGAACCAAGAAGACGGAAATCCATAAACCAATCACAATGACCA  
 TTCCGGTGCCCGCCCTCAGGAGAAGGTGTATCCAATGGATACAAAGGGGACACTACACCCAATCTGCG  
 TCTTCTGTAGCATTACAGGGGCACTTCGCCTGCTCAGTGGGAAGACATCACAGGAACAACCTCTTTG  
 ACGTTTATAAAAGATTGTGTCTCTTTACAACCAATGTTTACAGCCAGATTTGGCTTGACAGACTGCCATC  
 AAGTTTGAAGAACTGTGGGGTTAGCCACGCAACTGTACAGAGAATTGATATGTGTTCCATATATGGCCAA  
 GTTTGTTGTTTTGCCAAAATGAATGATCCCGTAGAATCTTCTTGCATGTTTCTGCATGACAGATGAC  
 AAAGTGGACAAAACCTTTAGAGCAACAAGAGAATTTGAGGAAGTCGCAAGAAGCAAGATATTGAGGTT  
 TGGAAAGAAAACCTATTTATGTTGATTGTTATGGAATTTGGCCCACTTACCAAAGGAGGACAGCAACT  
 GTTTTTAACTTTTATTCTTTCAAAGAAAATAGACTGCCATTTTCCATCAAGATTAGAGACACCAGCCAA  
 GAGCCCTGTGGTCTGTCTTTTCTGAAAGAACCAAGACAACAAAAGGACTGCCTCAAACAGCGGTTT  
 GCAACTTAAATATCACTCTGCCAGCACATAAAAAGATTGAGAAAACAGATAGACGACAGAGCTTCGCATC  
 CTTAGCTTTACGTAAGCGCTACAGCTACTTGACTGAGCCTGGAATGAGTCCACAGAGTCCATGTGAACGG  
 ACAGATATCAGGATGGCAATAGTAGCCGATCACCTGGGACTTAGTTGGACAGAAGTGGCAAGGAACTGA  
 ATTTTTCAGTGGATGAAATCAATCAATACGTGTGGAATAACCAATCTTTAATTTCTCAGAGCTTCAT  
 GTTATTAATAAATGGGTTACCAGAGACGGAAAAATGCCACAACCTGATGCCTTAACTTCGGTCTTGACA  
 AAAATTAATCGAATAGATATAGTGACACTGCTAGAAGGACCAATATTTGATTATGGAATATTTGAGGCA  
 CCAGAAGTTTGCAGATGAGAACAATGTTTCCATGACCCTGTTGATGGTTATCCTTCCCTCAAGTGGGA  
 ACTGGAACCCCCACAGGTTGCACTACACACCACCTACCCTTTCAGCAAGATGATTATTTAGTGAT  
 ATCTCTAGCATAGAATCTCCCTTAGAACCCCTAGTAGACTGAGTGTAGGCTAGTGCTTCCCAGGGGA  
 ACATAGAGCATTCCGCAGATGGACCTCCAGTCGTAACCTGCAGAAGACGCTTCTTAGAAGACAGCAAACT  
 GGAAGACTCAGTGCTTTAACAGAAATGCCTGAAGCAGTGGATGTAGATGAGAGCCAGTTGGAGAATGTA  
 TGTCTGAGTTGGCAGAATGAGACATCAAGTGGAACCTAGAGTCTGCGCTCAAGCTCGAAGAGTAACTG

GTGGGTTACTAGATCGACTGGATGACAGCCCTGACCAGTGTAGAGATTCCATTACCTCATATCTCAAAGG  
 AGAAGCTGGCAAATTTGAAGCAAATGGAAGCCATACAGAAATCACTCCAGAAGCAAAGACAAAATCTTAC  
 TTTCCAGAATCCCAAATGATGTAGGAAAAAGAGTACCAAGGAAACTCTGAAACCAAAAATACATGGAT  
 CTGGTCATGTTGAAGAACCAGCATCACCCTAGCAGCATATCAGAAATCTCTAGAAGAAACCAGCAAGCT  
 TATAATAGAAGAGACTAAACCTGTGTGCCTGTGAGTATGAAAAAGATGAGTAGGACTTCTCCAGCAGAT  
 GGCAAGCCAAGGCTTAGCCTCCATGAAGAAGAGGGGTCCAGTGGGTCTGAGCAAAGCAGGGAGAAGGTT  
 TTAAGGTGAAAACGAAGAAGAAATCCGGCATGTGGAAAAGAAGGCCACTCG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG235342 representing NM\_001204403  
 Red=Cloning site Green=Tags(s)

MASSASSPAGTEDSAPAQGGFGSDYSRSTRKSDANASYLRAARAGHLEKALDYIKNGVDINICNQNGLN  
 ALHLASKEGHVEVSELLQREANVDAATKKGNTALHIASLAGQAEVVKVLTNGANVNAQSQNGF TPL YM  
 AAQENHLEVVKFLLDNGASQSLATEDGF TPLAVALQQGHDQVVSLLLLENDTKGKVRPALHIAARKDDTK  
 AAALLLQNDNADVESKSGFTPLHIAAHYGNINVTALLLNRAAVDFTARNDITPLHVASKRGNANMVKL  
 LLDRGAKIDAKTRDGL TPLHCGARSGHEQVVEMLLDRAAPILSKTKNGLSPLHMAQGDHLNVCVQLLQH  
 NVPVDDVTNDYL TALHVAACHGHYKVAKVLDDKANPNKALNGFTPLHIAACKNRKIKVMELLLKHGASI  
 QAVTESGLTPIHVAAFMGHVNIQS QLMHHGASPNTTNVRGETALHMAARSGQAEVVRYLVQDGAQVEAKA  
 KDDQTPHLHISARLGKADIVQQLLQQGASPNAATTSGYTPLHLSAREGHEDVAFLLDHGASLSITTKKGF  
 TPLHVAAYKYGLEVANLLQKSASPDAAGKSGL TPLHVAHYDNQKVALLLLQDQASPHAAAKNGYTPLH  
 IAAKKNQMDIATLLEYGADANAVTRQGIASVHLAAQEGHVMVSLLLGRNANVNL SNKSGLTPLHLAAQ  
 EDRVNVAEVL VNGAHVDAQTKMGYTPHVGCHYGNIKIVNFLLOHSAKVNAKTKNGYTPLHQAAQQGHT  
 HIINVLLQNNASPNELT VNGNTALGIARRLGYISVVDTLKIVTEETMTTTVTEKHMMNPETMNEVLDM  
 SDDEVRKANAPEMLSDGEYISDVEEGEDAMTGDTKYLGPDQLKELGDDSLPAEYMGFSLGARSASLRS  
 FSSDRSYTLNRSSYARDSMMIEELLVPSKEQHL TFRFSDSLRHYSWAADTLDNVNLVSSPIHSGFLV  
 SPMVDARGGSMRGRHHGMRIIIPPRKCTAPTRITCRLVKRHLANPPMVEGEGLASRLVEMGPAGA QF  
 LGPVIVEIPHFSGMRGKERELIVLRSENGETWKEHQFDSKNEDEL TELLNGMDEELDSPEELGKKRICRII  
 TKDFPQYFAVVSRIKQESNQIGPEGGILSSTTVPLVQASFPAGALTKRIRVGLQAQPVPEIVKKILGNK  
 ATFSPIVTVEPRRRKFHKPITMTIPVPPPSGEGVSNYKGDTPNLRLLCSITGGTSPAQWEDITGTTPL  
 TFIKDCVSFTTNVSARFWLADCHQVLETYGLATQLYRELICVPYMAKFVVF AKMNDPVESLRCFCMTDD  
 KVDKTLEQQENFEEVARSKDIEVLEGKPIYVDCYGNLAPLTKGGQQLVFNFYSFKENRPLFSIKIRDTSQ  
 EPCGRLSFLKEPKTTKGLPQTAVCNLNLITLPAHKKIEKTD RRQSFASLALRKRYSYL TEPGMSPQSPCER  
 TDIRMAIVADHLGLSWTELARELNFVDEINQIRVENPNLSISQSFMLLKKWVTRDGKNATTDALTSVLT  
 KINRIDIVTLLEGPIFDYGNISGTRSFADENNVFHDVPDGYPSLQVELETPTGLHYTPPTPFQDDYFSD  
 ISSIESPLRTPSRLSDGLVPSQGNIEHSADGPPVVTAEDASLEDSKLEDSVPLTEMPEAVDVDESQLENV  
 CLSWQNETSSGNLESCAQARRVTGGLLDRLDDSPDQCRDSITSYLKGEAGKFEANGSHTETIPEAKTKSY  
 FPESQNDVQKQSTKETLKP KIHGSGHVEEPASPLAAYQKLEETS KLIIIEETKPCVPVSMKKMSRTSPAD  
 GKPRLSLHEEEGSSGSEQKQEGEFKVKTKKEIRHVEKSHS

TRTRPLE – GFP Tag – V

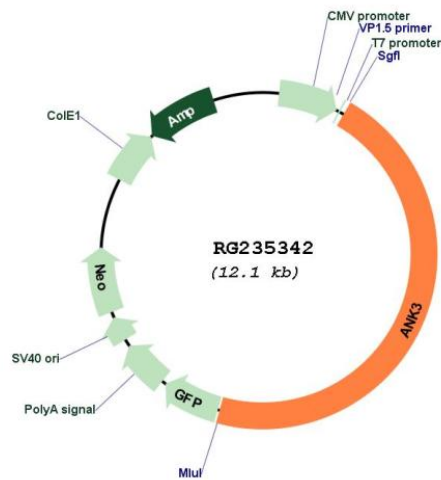
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001204403

ORF Size: 5583 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](mailto: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.

**RefSeq:** [NM\\_001204403.2](#)

**RefSeq Size:** 9356 bp

**RefSeq ORF:** 5586 bp

**Locus ID:** 288

**UniProt ID:** [Q12955](#)

**Cytogenetics:** 10q21.2

**Protein Families:** Druggable Genome

**Gene Summary:**

Ankyrins are a family of proteins that are believed to link the integral membrane proteins to the underlying spectrin-actin cytoskeleton and play key roles in activities such as cell motility, activation, proliferation, contact, and the maintenance of specialized membrane domains. Multiple isoforms of ankyrin with different affinities for various target proteins are expressed in a tissue-specific, developmentally regulated manner. Most ankyrins are typically composed of three structural domains: an amino-terminal domain containing multiple ankyrin repeats; a central region with a highly conserved spectrin binding domain; and a carboxy-terminal regulatory domain which is the least conserved and subject to variation. Ankyrin 3 is an immunologically distinct gene product from ankyrins 1 and 2, and was originally found at the axonal initial segment and nodes of Ranvier of neurons in the central and peripheral nervous systems. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Feb 2011]