

Product datasheet for **RG212082**

Ankyrin G (ANK3) (NM_001149) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ankyrin G (ANK3) (NM_001149) 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)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RG212082 representing NM_001149
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTTTACCGCAGAGTGAAGATGCAATGACCGGGACACAGACAAATATCTTGGGCCACAGGACCTTA
 AGGAATTGGGTGATGATTCCCTGCCTGCAGAGGGTTACATGGGCTTTAGTCTCGGAGCGGTTCTGCCAG
 CCTCCGCTCCTTCAGTTCGGATAGGTCTTACACCTTGAACAGAAGCTCCTATGCACGGGACAGCATGATG
 ATTGAAGAACTCCTTGTGCCATCCAAGAGCAGCATCTAACATTCACAAGGGAATTTGATTCAGATTCTC
 TTAGACATTACAGCTGGGCTGCAGACACCTTAGACAATGTCAATCTTGTTCAGCCCATTCATTCTGG
 GTTTCTGGTTAGCTTTATGGTGGACGCGAGAGGGGCTCCATGAGAGGAAGCCGCATCACGGGATGAGA
 ATCATCATTCTCCACGCAAGTGTACGGCCCCACTCGAATCACCTGCCGTTTGGTAAAGAGACATAAAC
 TGGCCAACCCACCCCATGGTGAAGGAGAGGGATTAGCCAGTAGGCTGGTGAATGGTCTGCAGG
 GGCACAATTTTTAGGCCCTGTCATAGTGGAAATCCCTCACTTTGGGTCCATGAGAGGAAAAGAGAGAGAA
 CTATTGTTCTTCGAAGTAAAAATGGTGAAGTGGAAAGGAGCAGATTCAGTTTGACAGCAAAAAATGAAGATT
 TAACCGAGTTACTTAATGGCATGGATGAAGAACTTGATAGCCAGAAAGAGTTAGGGAAAAAGCGTATCTG
 CAGGATTATCACGAAAGATTTCCCCAGTATTTGCGAGTGGTTTCCCGGATTAAGCAGGAAAAGCAACCAG
 ATTGGTCTGAAGGTGGAATCTGAGCAGCACCACAGTGCCTTGTTCAGCATCTTCCAGAGGGGTG
 CCCTAACTAAAAGAAATTCGAGTGGGCTCCAGGCCAGCTGTCCAGATGAAATGTGAAAAAGATCCT
 TGGAAACAAAGCAACTTTAGCCCAATTGTCAGTGTGGAACCAAGAAGACGGAATTCATAAACCAATC
 ACAATGACCATTCCGGTGCCTCCAGGAGAGGGTATCCAATGGATACAAGGGGACACTACAC
 CCAATCTGCGTCTCTCTGTAGCATTACAGGGGGCACTTCGCTGCTCAGTGGGAAGACATCACAGGAAC
 AACTCCTTTGACGTTTATAAAAGATTGTCTCCTTTACAACCAATGTTTCAGCCAGATTTGGCTTGCA
 GACTGCCATCAAGTTTTAGAACTGTGGGTTAGCCACGCAACTGTACAGAGAATTGATATGTGTTCCAT
 ATATGGCCAAGTTTGTGTTTTGCCAAAATGAATGATCCCGTAGAATCTTCTTGCATGTTTCTGCAT
 GACAGATGACAAAGTGGACAAAATTTAGAGCAACAAGAGAATTTGAGGAAGTCGCAAGAAGCAAAGAT
 ATTGAGTTCTGGAAGGAAAACCTATTTATGTTGATTGTTATGGAATTTGGCCCACTTACCAAAGGAG
 GACAGCAACTGTTTTAACTTTTATTCTTCAAAGAAAATAGACTGCCATTTCCATCAAGATTAGAGA
 CACCAGCCAAGAGCCCTGTGGTCTGTCTTTTCTGAAAGAACCAAGACAACAAAAGGACTGCCTCAA
 ACAGCGGTTTGCAACTTAAATATCACTCTGCCAGCACATAAAAAGATTGAGAAAACAGATAGACGACAGA
 GCTTCGCATCCTTAGCTTACGTAAGCGCTACAGCTACTTGACTGAGCCTGGAATGAGTCCACAGAGTCC
 ATGTGAACGGACAGATATCAGGATGGCAATAGTAGCCGATCACCTGGGACTTAGTTGGACAGAAGTGGCA
 AGGAACTGAATTTTTCAGTGGATGAAATCAATCAAATACGTGTGAAAAATCCAAATTTCTTAATTTCTC
 AGAGCTTCATGTTATAAAAAATGGGTTACCAGAGACGGAAAAATGCCACAATGATGCCTTAACTTC
 GGTCTTGACAAAAATTAATCGAATAGATATAGTGACACTGCTAGAAGGACCAATATTTGATTATGGAAT
 ATTTACAGGCACCAGAAGTTTGCAGATGAGAACAATGTTTCCATGACCTGTTGATGGTTATCCTTCCC
 TTCAAGTGAAGTGGAAACCCACAGGGTTGCACTACACACCACCTACCCCTTCCAGCAAGATGATTA
 TTTTAGTGATATCTAGCATAGAATCTCCCTTAGAACCCCTAGTAGACTGAGTATGGGCTAGTGCCT
 TCCAGGGGAACATAGAGCATTCCGCAGATGGACCTCCAGTCTGTAAGTGCAGAAGACGCTTCTTAGAAG
 ACAGCAAACTGGAAGACTCAGTGCTTTAACAGAAATGCCTGAAGCAGTGGATGTAGATGAGAGCCAGTT
 GGAGAATGTATGTCTGAGTTGGCAGAATGAGACATCAAGTGGAAACCTAGAGTCTGCGCTCAAGCTCGA
 AGAGTAACTGGTGGGTTACTAGATCGACTGGATGACAGCCCTGACCAGTGTAGAGATTCCATTACCTCAT
 ATCTCAAAGGAGAAGCTGGCAAATTTGAAGCAAATGGAAGCCATACAGAAATCACTCCAGAAGCAAAGAC
 AAAATCTTACTTTCCAGAATCCCAAAATGATGTAGGAAAACAGAGTACCAAGGAACTCTGAAACAAAA
 ATACATGGATCTGGTCATGTTGAAGAACCAGCATCACCACTAGCAGCATATCAGAAATCTCTAGAAGAAA
 CCAGCAAGCTTATAATAGAAGAGACTAAACCTGTGTGCCTGTGAGTATGAAAAAGATGAGTAGGACTTC
 TCCAGCAGATGGCAAGCCAAGGCTTAGCCTCCATGAAGAAGAGGGTCCAGTGGGTCTGAGCAAAAGCAG
 GGAGAAGTTTTAAGGTGAAAACGAAGAAAGAAATCCGGCATGTGAAAAAGAAGGCCACTCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG212082 representing NM_001149
 Red=Cloning site Green=Tags(s)

MALPQSEDAMTGDTKYLGPQDLKELGDDSLPAEGYMGFSLGARSASLRSFSSDRSYTLNRSSYARDSMM
 IEELLVPSKEQHLTFTREFDSDSLRHYSWAADTLDNVNLVSSPIHSGFLVSFMDARGGSMRGRHHGMR
 I IIPRKCTAPTRITCRLVKRHKLANPPPMVEGEGLASRLVEMGPAGAQLGPVIVEIPHFGSMRGKERE
 LIVLRSENGETWKEHQFDSKNEDL TEL LNMDEELD SPEELGKKRICRIITKDFPQYFAVVSRIKQESNQ
 IGPEGGILSSTTVPLVQASFPÉGALTKRIRVGLQAQVPVDEIVKKILGNKATFSP I V T V E P R R R K F H K P I
 TMTIPVPPSPGEGVSNKYKGD T T P N L R L L C S I T G G T S P A Q W E D I T G T T P L T F I K D C V S F T T N V S A R F W L A
 DCHQVLETVGLATQLYRELICVPYMAKVFVFAKMNDPVESSLRCFCMTDDKVDKLEQQENFEVARSKD
 IEVLEGKPIYVDCYGNLAPLTKGGQQLVFNFYFKENR L P F S I K I R D T S Q E P C G R L S F L K E P K T T K G L P Q
 TAVCNL N I T L P A H K K I E K T D R R Q S F A S L A L R K R Y S Y L T E P G M S P Q S P C E R T D I R M A I V A D H L G L S W T E L A
 R E L N F S V D E I N Q I R V E N P N S L I S Q S F M L L K K W V T R D G K N A T T D A L T S V L T K I N R I D I V T L L E G P I F D Y G N
 I S G T R S F A D E N N V F H D P V D G Y P S L Q V E L E T P T G L H Y T P P T P F Q Q D D Y F S D I S S I E S P L R T P S R L S D G L V P
 S Q G N I E H S A D G P P V V T A E D A S L E D S K L E D S V P L T E M P E A V D V D E S Q L E N V C L S W Q N E T S S G N L E S C A Q A R
 R V T G G L L D R L D D S P D Q C R D S I T S Y L K G E A G K F E A N G S H T E I T P E A K T K S Y F P E S Q N D V G K Q S T K E T L K P K
 I H G S G H V E E P A S P L A A Y Q K S L E E T S K L I I E E T K P C V P V S M K K M S R T S P A D G K P R L S L H E E G S S G S E Q K Q
 G E G F K V K T K K E I R H V E K K S H S

TRTRPLE - GFP Tag - V

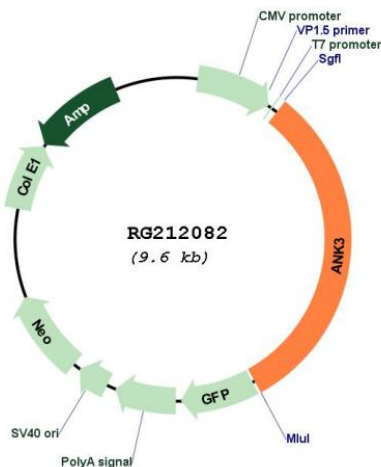
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001149

ORF Size: 3003 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_001149.3](#), [NP_001140.2](#)

RefSeq Size: 7218 bp

RefSeq ORF: 3006 bp

Locus ID: 288

UniProt ID: [Q12955](#)

Cytogenetics: 10q21.2

Domains: ZU5, ANK

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]