

Product datasheet for **RG220763**

ANK1 (NM_020476) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ANK1 (NM_020476) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ANK1
Synonyms:	ANK; SPH1; SPH2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220763 representing NM_020476 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCCTATTCTGTGGGCTTCCGCGAAGCCGATGCTGCTACCAGCTTTCTGAGAGCAGCAAGATCAGGTA
ACTTGGACAAAGCTTTGGATCACCTGCGGAATGGGGTAGATATTAACACCTGTAACCAGAATGGGTTGAA
TGGCTTGCATCTGGCTTCTAAGGAAGGCCATGTGAAAATGGTGGTTGAACTTCTGCACAAAGAAATCATT
CTAGAAAACGACAACCAAGAAGGGGAACACGGCCCTGCACATCGTCTAGCCGGGCAGGATGAGGTGG
TCCGGGAGCTTGTCAACTATGGAGCCAAGTCAACGCCAGTCACAGAAAGGTTTTACACCCTGTACAT
GGCAGCACAAGAGAACCCTTGAAGTGGTTAAGTTTTACTGGAAAATGGAGCTAACCGAATGTAGCC
ACAGAAGACGGCTTACGCCTCTGGCGGTAGCCCTGCAGCAGGGCCATGAGAACGTCGTCGCGCACCTCA
TCAACTACGGCACCAAGGGGAAGGTGCGCCTCCCGGCCCTGCACATCGCGGCCCGCAACGACGACACGCG
CACGGTGCGGTCTGCTGCAGAACGCCCAACCCGGACGTGCTTCCAAGACGGGATTACGCCCCCTG
CACATTGGCGTCACTACGAGAACCTCAACGTGGCCAGTTGCTCCTCAACAGAGGAGCCAGCGTCAATT
TCACACCACAGAACGGCATCACGCCACTGCACATCGCCTCCCGCAGGGGCAACGTGATCATGGTGGCGCT
GCTGCTGGATCGGGGAGCCAGATAGAAACCAAGCAAGGACGAATTGACACCTCTCCACTGTGCAGT
CGAAATGGGCACGTGCGAATCTCAGAGATCCTGCTGGACCAGGGGCAACCAATCCAAGCCAAAACCAAGA
ACGGCCTGTCCCAATTCACATGGCGGCTCAGGGAGACCACCTCGACTGTGTCCGGCTCCTGTTGCAATA
CGACGCAGAGATAGACGACATCACCTGGACCCTGACCCCACTCCACGTGGCTGCCCACTGTGGACAC
CACAGGTGGCTAAGTCTTCTGGATAAAGGGGCCAAACCCAACTCCAGAGCCCTGAATGGCTTTACCC
CCTTACACATCGCCTGCAAAAAGAACCGTCCGTGTCATGGAGTCTGCTGAAGACGGGAGCCTCGAT
CGACGCGTCAACGAGTCTGGCCTGACACCTCTCCACGTGGCCTCCTTATGGGGCACCTTCCCATCGT
AAGAACCCTCTGCAGCGGGGGCGTCGCCAACGTCTCCAACGTGAAAGTGGAGACCCCGCTACACATGG
CAGCCAGACCGGGCACACGGAAGTGGCCAAATATTTACTCCAGAACAAGCCAAAGTCAATGCCAAGGC
CAAGGATGACCAGACCCCACTTCACTGTGCAGCTCGCATCGGCCACACAAACATGGTGAAGCTCCTGCTG



GAAAATAACGCCAACCCCAACCTGGCCACCACCGCCGGGCACACCCCCTGCACATTGCAGCCCGTGAGG
 GCCATGTGGAAACAGTCTCTGGCCCTTCTGGAAAAGGAAGCATCCCAGGCCTGCATGACCAAGAAAGGATT
 TACCCCTCTGCACGTGGCGGCCAAGTACGGGAAGGTGCGGGTGGCAGAGCTGCTGCTGGAGCGGGACGCA
 CACCCGAATGCTGCCGAAAAAATGGCCTGACCCCTGCACGTGGCCGTCCATCACAACAACCTGGACA
 TCGTCAAGCTGCTGCTCCCCGGGGCGGCTCCCCGCACAGCCCTGCCTGGAATGGCTACACCCCTTTGCA
 CATCGTGCACAAGCAGAACCAGGTGGAGGTGGCCCGTAGTCTGCTGCAGTATGGGGCTCAGCAAAACGCC
 GAGTCGGTCAAGGTGTGACGCCCTTACCTGGCCGCCAGGAGGCCACGCAGAGATGGTGGCTGTC
 TGCTCTCGAAACAAGCCAATGGCAACCTGGGGAACAAGAGCGGACTCACTCCCTCCATCTGGTAGCACA
 AGAAGGCCACGTTCCAGTGGCAGATGTGCTGATCAAACACGGCGTCATGGTGGACGCCACCACCCGGATG
 GGCTACACTCCCTCCATGTGGCCAGTCACTATGGAAACATCAAGCTGGTGAAGTTTCTGCTGCAGCACC
 AGGCAGATGTCAATGCCAAGACCAAGCTAGGATACAGCCCTGCACCAGGCAGCCAGCAGGGACACAC
 AGACATCGTGACTCTGCTTCTGAAAAACGGTGTCTCCCAACAGAGGTGAGCTCGGATGGAACCACACT
 CTGGCCATAGCCAAGCGTTGGGCTACATTTCTGTACCAGCTGCTCAAGGTCGTACGGATGAAACCA
 GTTTCGTGTTAGTCAGTGATAAGCATCGAATGAGTTTCCCTGAGACAGTTGATGAGATCCTGGATGTCTC
 GGAAGATGAAGGGGAAGAAGTCACTAGCTTCAAGGCTGAGAGCGGGATTCCAGGGATGTTGATGAAGAG
 AAGGAGCTGCTGGATTTTGTGCCGAAGTAGACCAAGTGGTGAATCTCCAGCCATCCCAAGGATCCCT
 GTGCCATGCCTGAGACAGTGGTGTGATCAGGTGAGAGAGCAGGAGCAGGCATCTAAAGAGTATGATGAGGA
 CTCCCTCATCCCAAGCAGCCCGCCACCAGACCTCAGACAACATCAGCCCGGTGGCCAGCCCGGTGCAT
 ACAGGGTTTCTGGTGAGCTTTCATGGTTGACGCCCGGGTGGTTCATGAGAGGAAGTCGCCACAACGGCC
 TGCGAGTGGTGTATCCCGCCACGGACGTGCGCAGCGCCACCCGCATCACCTGCCGCTGGTCAAGCCCA
 GAAGCTCAGCAGCCGCCCCACTGGCCGAGGAGGAGGGCTGGCCAGCAGGATCATAGCACTGGGGCC
 ACGGGGGCACAGTTCCTGAGCCCTGTAATCGTGGAGATCCCGACTTTGCCTCCATGGCCGTGGAGACC
 GCGAGTCGTGGTTCTGAGGAGGAAAAACGGCTCCGTGTGAAGGAGCACAGGAGCCGTATGGAGAGAG
 CTACCTGGATCAGATCCTCAACGGGATGGACGAAGAGCTGGGGAGCCTGGAGGAGCTAGAGAAGAAGAGG
 GTGTGCCGAATCATCACCACCGACTTCCCGCTGTACTTCTGTGATCATGTACGGCTCTGCCAGGACTACG
 ACACCATCGTCCGAAGGGGGCTCCCTGAAGAGCAAGCTGGTGGCCCTGGTACAGGCAACGTTCCCGGA
 GAATGCCGTACCAAGAGAGTGAAGCTGGCTCTGCAGGCCAGCCTGTCCCGGATGAGCTTGTACTAAG
 CTCCTGGGCAACCAGGCCACATTAGCCCAATTGTACCCTGGAGCCCGGCGCCGAAGTTCCACCGCC
 CCATTGGCTTCGGATCCCACTACCTCCTTCTGGACGACAACCCGAGGGACAGCGGGAGGGAGACAC
 CACCAGCTGCGCTGCTTTCAGCGTCAATTGGAGGAACAGACCAAGCCAGTGGGAAGACATAACAGGA
 ACCACCAAATTTGATATGCCAACGAGTGCGCCAACTTACCACCAATGTCTCTGCCAGTTTTGGCTGT
 CGGACTGTCTCGGACTGCTGAGGCTGTGAATTTGCCACCCTGTGTACAAAGAGCTCACTGCAGTGCC
 CTACATGGCCAAATTCGTATCTTTGCCAAGATGAATGACCCCGAGAGGGGGCCTGCGCTGCTACTGC
 ATGACAGATGATAAAGTGGACAAGACCCTGGAGCAGCATGAGAATTCGTGGAGGTGGCCCGGAGCAGGG
 ACATAGAGGTGTTGGAAGGAATGTCCCTGTTTGCAGAATCTCTGGGAACCTGGTGCCTGTGAAGAAAGC
 TGCCAGCAGCGGAGCTTCCACTTCCAGTCATTTCCGGGAGAACCCTGTGGCCATGCCTGTAAAGGTGAGG
 GACAGCAGTCGAGAGCCGGGAGGGTCCCTGTGTTTCTGCGCAAGGCGATGAAGTACGAGGACACCCAGC
 ACATTCCTGCCACCTGAACATCACCATGCCCCCTGCGCAAGGGAAGTGGAGCCGAAGATAGGAGAAG
 GACCCGACGCCCCTGGCCCTGCGATACAGCATTCTCAGTGAGTCCACACCAGGTTCTCTCAGTGGGACA
 GAGCAGGCAGAGATGAAGATGGCTGTTATCTCAGAGCACCTCGGTCTCAGCTGGGACAGGTTGGCCCGGG
 AGCTGCAGTTCAGTGTGAAGACATCAACAGGATCCGAGTGGAAAATCCCAACTCCCTGTTGGAGCAGAG
 TGTGGCCTTGCTGAACCTCTGGGTATCCGTGAAGGCCAAAACGCAACATGGAGAATCTGTACACAGCC
 CTGCAGAGCATTGACCGTGGCGAGATCGTGAACATGCTGGAGGGTTCCGGCCGACAGAGCCGAACCTTGA
 AGCCAGACAGGGGCACACCCGACCGGACTACTCGCTGTACCCTCCAGATGAATGGTTACTCCTCACT
 GCAGGACGAGCTGCTGTCCCTGCCTCCCTGGGCTGTGCACTTTCCTCTCCGCTACGTGCAGACCAGTAC
 TGAATGAGGTGGCCGTCTAGACGCCATCCCTTGGCGGCCACGGAGCATGACACCATGCTGGAGATGT
 CTGACATGCAGGTGTGGTCTGCGGGCTCACGCCCTTCTGGTCACTGCTGAGGACTCCTCTCTGGAGTG
 TAGCAAGGCTGAGGACTCTGATGCCACAGGTACGAGTGAAGTTGGAGGGGGCACTCTCAGAGGAACCG
 CGGGGCCCGAGTTGGGCTCTCTGGAACCTGTGGAGGACGACACAGTGGATTGAGATGCCACAAATGGCC
 TTATCGATTTGCTTGAACAGGAGGAAGGTGAGAGGTGAGAAGAGAAGCTGCCAGGTTCTAAGAGGCGAGGA
 TGACGCGACAGGTGCAGGGCAGGACTCAGAGAATGAAGTGTCTTGTTCAGGCCATCAGAGGGGGCAA
 GCCCAATCACACATCCCCACCGTAGTCAAGTACGGAGAGGAGTACAGGACAGACTGCAGGACTGGG

ATGCAGACGGCTCGATTGTCTACACTGCAAGATGCTGCACAAGGTTCCCTGGCAAGAGGAGGTCACGCA
 AGGTCCCACTCATTCCAGGGAACAAGTACCATGACTGAAGGGCTAGAGCCCGGTGGATCTCAGGAGTAC
 GAGAAGGTCTGGTGTCTGTAAGTGAGCACACGTGGACAGAACAGCCCGAGGCTGAGAGCTCCCAGGCC
 ACAGGGACCGGAGGCAGCAAGGCCAAGAAGAGCAGGTGCAGGAGGCCAAGAACACCTTACCCAAGTGGT
 GCAGGGGAATGAGTTTCAGAATATTCCAGGGGAGCAGGTGACAGAGGAGCAATTCACGGATGAGCAGGGC
 AACATTGTCACCAAGAAGATCATTGCAAGGTGGTTCGACAGATAGACTTGTCCAGCGCCGATGCCGCC
 AGGAGCACGAGGAGGTGACTGTAGAGGGGCCCTGGAGGATCCAGTGAGCTGGAGGTGATATTGATTA
 CTTTATGAAACTCAAGGATCACACCTCGACACCCAACCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG220763 representing NM_020476

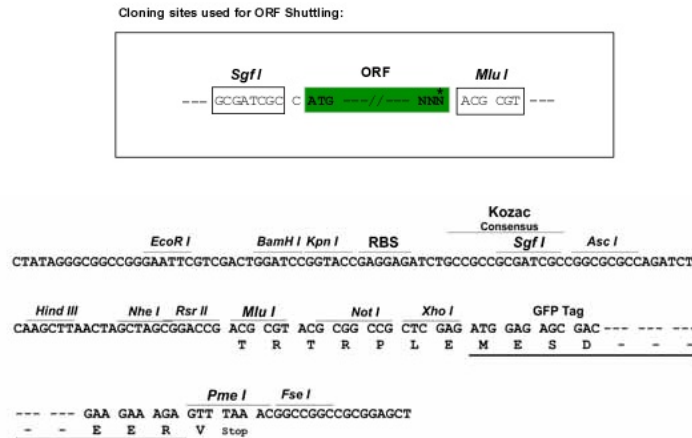
Red=Cloning site Green=Tags(s)

MPYSVGFREDAATSFLRAARSGNLDKALDHLRNGVDINTCNQNLNGLHLASKEGHVKMVVELLHKEII
 LETTTKKGNTALHIAALAGQDEVVREL VNYGANVNAQSQKGF TPLYMAAQENHLEVVKFLENGANQVVA
 TEDGFTPLAVALQQGHENVVAHL INYGTGKGVRLPALHIAARNDDTRTAAVLLQNDPNPDVLSKTGF TPL
 HIAAHYENLNVAQLLLNRGASVNF TPQNGITPLHIASRRGNVIMVRLLLDRGAQIETKTKDEL TPLHCAA
 RNGTHVRISEILLDHGAPIQAKTKNGL SPIHMAAQGDHLDVRLLLQYDAEIDDI TL DHL TPLHVAACHGH
 HRVAKVLLDKGAKPNSRALNGF TPLHIACKKNHVRVMELLLKTGASIDAVTESGL TPLHVASFMGHLPIV
 KNLLQRGASPNVSNVKVETPLHMAARAGHTEVAKYLLQNKAKVNAKAKDDQTPLHCAARIGHTNMVKLL
 ENNANPNLATTAGHTPLHIAAREGHVETVLALLEKEASQACMTKKGFTPLHVAAYGKVRVAELLLERDA
 HPNAAGKNGL TPLHVAVHHNLDIVKLLPRGGSPPHSPAWNGYTPLHIAAQNQVEVARSLLYQGSANA
 ESVQGV TPLHLAAQEGHAEMVALLSKQANGNLGNKSGL TPLHLVAQEGHVPADVLIKHGVMVDATTRM
 GYTPLHVASHYGNIKLVKFLQHQADVNAKTKLGYSPHQAAQQGHTDIVTLLKNGASPNEVSSDGTP
 LAIAKRLGYISVTDVVKVVTDETSFVLVSDKHRMSFPETVDEILDVSEDEGEELISFKAERRDSRDVDEE
 KELLDFVPKLDQVVESPAIPRIPCAMPETVIRSEEQEASKEYDEDSLIPSSPATETSDNISPVASPVH
 TGFLVFSMVDARGGSMRGRHNLRVVIPPRTCAAPTRITCRLVKPQKLSPPPPLAEEGLASRIIALGP
 TGAQFLSPVIVEIPHFASHGRGDREL VVLRSENGSVWKEHRSRYGESYLDQILNGMDEELGSLLEELEK
 VCRITITDFPLYFVIMSRLCQDYDTIGPEGSLKSKLVPLVQATFPENAVTKRVKALALQAQVPPDELVTK
 LLGNQATFSPIVTVEPRRRKFHRPIGLRIPLPPSWTDNPRDSGEGDTTSLRLLCSVIGGTDQAQWEDITG
 TTKLVYANECANFTTNVSARFWLSDCPRTAEAVNFATLLYKELTAVPYMAKFVIFAKMNDPREGRLRCYC
 MTDDKVDKLEQHENFVEVARSDIEVLEGMSLFAELSGNLVPVKKAAQQRSFHFQSFRENRLAMPVKVR
 DSSREPGGSLSFLRKAMYEDTQHILCHLNITMPPCAKGSAGEDRRRTPTPLALRYSILSESTPGSLSGT
 EQAEMKMAVISEHLGLSWAELARELQFVEDINRIRVENPNSLLEQSVALLNLWVIREGQANMENLYTA
 LQSIDRGEIVNMLEGSGRQRNLKPDRRHTDRDYSLSPSQMNGYSSLQDELLSPASLGCALSSPLRADQY
 WNEVAVLDAIPLAATEHDTMLEMSDMQVWSAGLTPSLVTAEDSSLECSKAEDSDATGHEWKLEGALSEEP
 RGPGLGSELELVEDD TVDS DATNGLIDLLEQEEGQRSEEKLPGSKRQDDATGAGQDSENEVSLVSGHQRGQ
 ARITHSPTVSQVTERSQDRLQDWDADGSIVSYLQDAAQGSWQEEVTQGPHSFQGTSTMTEGLEPGGSQEY
 EKVLVSVSEHTWTEQPEAESSQADRDRRQQGQEEQVQEAKNFTTQVVQGNFQNIPEQVTEEQFTDEQ
 NIVTKKIIRKVVQRIDLSSADAAQEHEEVTVEGPLEDPSELEVDIDYFMKHSKDHTSTPNP

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_020476

ORF Size: 5643 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:

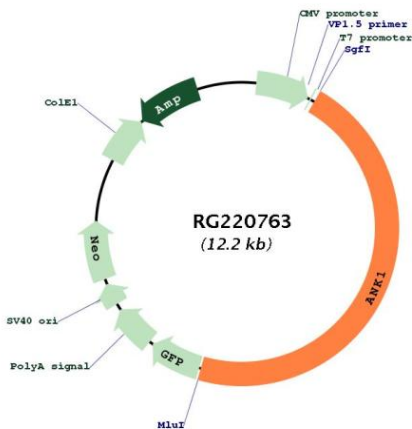
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_020476.3](#)
RefSeq Size: 8240 bp
RefSeq ORF: 5646 bp
Locus ID: 286
UniProt ID: [P16157](#)
Cytogenetics: 8p11.21

Protein Families: Transmembrane

Gene Summary: Ankyrins are a family of proteins that 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 1, the prototype of this family, was first discovered in the erythrocytes, but since has also been found in brain and muscles. Mutations in erythrocytic ankyrin 1 have been associated in approximately half of all patients with hereditary spherocytosis. Complex patterns of alternative splicing in the regulatory domain, giving rise to different isoforms of ankyrin 1 have been described. Truncated muscle-specific isoforms of ankyrin 1 resulting from usage of an alternate promoter have also been identified. [provided by RefSeq, Dec 2008]

Product images:



Circular map for RG220763