

Product datasheet for RC216652

ANK1 (NM_020477) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ANK1 (NM_020477) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ANK1
Synonyms: ANK; SPH1; SPH2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC216652 representing NM_020477
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCCTATTCTGTGGGCTTCCGCGAAGCCGATGCTGCTACCAGCTTTCTGAGAGCAGCAAGATCAGGTA
 ACTTGGACAAAGCTTTGGATCACCTGCGGAATGGGGTAGATATTAACACCTGTAACCAGAATGGGTTGAA
 TGGCTTGCATCTGGCTTCTAAGGAAGGCCATGTGAAAATGGTGGTTGAACTTCTGCACAAAGAAATCATT
 CTAGAAACGACAACCAAGAAGGGGAACACGGCCCTGCACATCGCTGCTCTAGCCGGGAGGATGAGGTGG
 TCCGGGAGCTTGTCAACTATGGAGCCAACGTCAACGCCAGTCAACAGAAAAGGTTTACACCCCTGTACAT
 GGCAGCACAAGAGAACCCTTGGAAAGTGGTTAAGTTTTTACTGGAAAATGGAGCTAACAGAAATGTAGCC
 ACAGAAGACGGCTTACGCCTCTGGCGGTAGCCCTGCAGCAGGGCCATGAGAACGTGTCGCGCACCTCA
 TCAACTACGGCACCAAGGGGAAGGTGCGCCTCCCGGCCCTGCACATCGCGGCCCGCAACGACGACACGCG
 CACGGCTGCGGTGCTGCTGCAGAACGCCCAACCCGGACGTGCTTCCAAGACGGGATTCACGCCCTG
 CACATTGGGCTCACTACGAGAACCTCAACGTGGCCAGTTGCTCCTCAACAGAGGAGCCAGCGTCAATT
 TCACACCACAGAACGGCATCACGCCACTGCACATCGCCTCCCGCAGGGGCAACGTGATCATGGTGGCGCT
 GCTGTGGATCGGGAGCCAGATAGAAACCAAGACCAAGGACGAATTGACACCTTCCACTGTGCACT
 CGAAATGGGCACGTGCGAATCTCAGAGATCCTGCTGGACCACGGGGCACCAATCCAAGCCAAAACCAAGA
 ACGGCCTGTCCCAATTCACATGGCGGCTCAGGGAGACCCTCGACTGTGTCCGGCTCCTGTTGAATA
 CGACGCAGAGATAGACGACATCACCTGGACCCTGACCCCACTCCACGTGGCTGCCACTGTGGACAC
 CACAGGGTGGCTAAGTCTTCTGGATAAAGGGGCCAAACCAACTCCAGAGCCCTGAATGGCTTTACCC
 CCTTACACATCGCTGCAAAAAGAACCACGTCCGTGTCATGGAGCTGCTGCTGAAGACGGGAGCCTCGAT
 CGACGCGGTACCGAGTCTGGCCTGACACCTCTCCACGTGGCCTCCTTCATGGGGACCTTCCCATCGT
 AAGAACCTCCTGCAGCGGGGGCGTCGCCAACGTCTCCAACGTGAAAGTGGAGACCCCGCTACACATGG
 CAGCCAGAGCCGGGCACACGGAAGTGGCCAAATATTTACTCCAGAACAAGCCAAAGTCAATGCCAAGGC
 CAAGGATGACCAGACCCCACTTCACTGTGACGCTCGCATCGGCCACAAAACATGGTGAAGCTCCTGCTG
 GAAAATAACGCCAACCCCAACCTGGCCACCACCGCCGGGCACACCCCTGCACATTGCAGCCCGTGAGG



GCCATGTGAAACAGTCCTGGCCCTTCTGGAAAAGGAAGCATCCCAGGCCTGCATGACCAAGAAAGGATT
 TACCCCTCTGCACGTGGCGGCCAAGTACGGGAAGGTGCGGGTGGCAGAGCTGCTGCTGGAGCGGGACGCA
 CACCCGAATGCTGCCGAAAAAATGGCCTGACCCCTGCACGTGGCCGTCCATCACAACAACCTGGACA
 TCGTCAAGCTGCTGCTTCCCCGGGGCGGCTCCCCGCACAGCCCTGCCTGGAATGGCTACACCCCTTTGCA
 CATCGTGCACAAGCAGAACAGGTGGAGGTGGCCCGTAGTCTGCTGCAGTATGGGGGCTCAGCAAACGCC
 GAGTCGGTGCAAGGTGTGACGCCCTTACCTGGCCGCCAGGAGGGCCACGCAGAGATGGTGGCTCTGC
 TGCTCTCGAAACAAGCCAATGGCAACCTGGGGAACAAGAGCGGACTCACTCCCCTCCATCTGGTAGCACA
 AGAAGGCCACGTTCCAGTGGCAGATGTGCTGATCAAACACGGCGTCATGGTGGACGCCACCACCCGATG
 GGCTACACTCCCCTCCATGTGGCCAGTCACTATGGAAACATCAAGCTGGTGAAGTTTCTGCTGCAGCACC
 AGGCAGATGTCAATGCCAAGACCAAGCTAGGATACAGCCCTGCACCAGGCAGCCAGCAGGGACACAC
 AGACATCGTGACTCTGCTTCTGAAAAACGGTGCTTCCCCAAACGAGGTGAGCTCGGATGGAACCACCT
 CTGGCCATAGCCAAGCGCTTGGGCTACATTTCTGTACCAGCTGCTCAAGGTGTCACGGATGAAACCA
 GTTTCGTGTTAGTCAGTGATAAGCATCGAATGAGTTTCCCTGAGACAGTTGATGAGATCTGGATGTCTC
 GGAAGATGAAGGGGAAGAACTCATCAGCTTCAAGGCTGAGAGCGGGATTCCAGGGATGTTGATGAAGAG
 AAGGAGCTGCTGGATTTGTGCCAAGCTAGACCAAGTGGTGAATCTCCAGCCATCCCAGGATCCCT
 TGCCATGCCTGAGACAGTGGTGTGATCAGGTGAGAAGAGCAGGAGCAGGCATCTAAAGAGTATGATGAGGA
 CTCCCCTATCCCAGCAGCCCGGCCACCAGACCTCAGACAACATCAGCCCGGTGGCCAGCCCGGTGCAT
 ACAGGGTTTCTGGTGAGCTTTCATGGTTGACGCCCGGGGTGGTTCCATGAGAGGAAGTCGCCACAACGGCC
 TGCGAGTGGTGATCCCGCCACGGACGTGCGCAGCGCCACCCGCATCACCTGCCGCTGGTCAAGCCCCA
 GAAGCTCAGCACGCCGCCCCACTGGCCGAGGAGGAGGGCTGGCCAGCAGGATCATAGCACTGGGGCC
 ACGGGGACAGTTCTGAGCCCTGTAATCGTGGAGATCCCGACTTTGCCTCCATGGCCGTGGAGACC
 GCGAGCTCGTGGTTCTGAGGAGCGAAAACGGCTCCGTGTGAAGGAGCACAGGAGCCGCTATGGAGAGAG
 CTACCTGGATCAGATCCTCAACGGGATGGACGAAGAGCTGGGAGCCTGGAGGAGCTAGAGAAGAAGAGG
 GTGTGCCGAATCATCACCCGACTTCCCGCTGTACTTCGTGATCATGTACGGCTCTGCCAGGACTACG
 ACACCATCGTCCGAAGGGGGCTCCCTGAAGAGCAAGCTGGTGGCCCTGGTACAGGCAACGTTCCCGGA
 GAATGCCGTACCAAGAGAGTGAAGCTGGCTCTGCAGGCCAGCCTGTCCCGGATGAGCTTGTACTAAG
 CTCCTGGGCAACCAGGCCACATTAGCCCAATTGTACCGTGGAGCCCGCGCCGGAAGTTCACCCGCC
 CCATTGGGCTTCGGATCCCACTACCTCCTTCTGGACCGACAACCCGAGGGACAGCGGGGAGGGAGACAC
 CACCAGCTGCGCTGCTTTCAGCGTCAATGGAGGAACAGACCAAGCCAGTGGGAAGACATAACAGGA
 ACCACAAACTTGTATATGCCAACGAGTGCGCCAACTTACCACCAATGTCTCTGCCAGGTTTTGGCTGT
 CGGACTGTCTCGGACTGCTGAGGCTGTGAACCTTGCACCCTGTGTACAAAGAGCTCACTGCAGTGCC
 CTACATGGCCAAATTCGTATCTTTGCCAAGATGAATGACCCCGAGAGGGGCGCCTGCGCTGCTACTGC
 ATGACAGATGATAAAGTGGACAAGACCTGGAGCAGCATGAGAATTCGTGGAGGTGGCCCGGAGCAGGG
 ACATAGAGGTGTTGGAAGGAATGTCCCTGTTTGCAGAACTCTCTGGGAACCTGGTGCCTGTGAAGAAAGC
 TGCCCAGCAGCGGAGCTTCCACTTCCAGTCATTTCCGGGAAACCGTCTGGCCATGCCTGTAAAGGTGAGG
 GACAGCAGTCGAGAGCCGGGAGGGTCCCTGTGTTTTCTGCGCAAGGGGATGAAGTACGAGGACACCCAGC
 ACATTCCTGCCACCTGAACATCACCATGCCCCCTGCGCAAGGGAAGTGGAGCCGAAGATAGGAGAAG
 GACCCCGACGCCCTGGCCCTGCGATACAGCATTCTCAGTGAGTCCACACCAGGTTCTCTCAGTGGGACA
 GAGCAGGCAGAGATGAAGATGGCTGTTATCTCAGAGCACCTCGGTCTCAGCTGGCAGAGTTGGCCCGG
 AGCTGCAGTTTCAGTGTGGAAGACATCAACAGGATCCGAGTGGAAAATCCAACTCCTGTTGGAGCAGAG
 TGTGGCCTTGTGAACCTCTGGGTCATCCGTGAAGGCCAAAACGCAAAATGGAGAATCTGTACACAGCC
 CTGCAGAGCATTGACCGTGGCGAGATCGTGAACATGCTGGAGGGTTCCGGCCGACAGAGCCGCAACTTGA
 AGCCAGACAGGGGCACACCGACCGGACTACTCGCTGTACCCTCCAGATGAATGGCCATCAGAGGGG
 GCAAGCCCGAATCACACATTCACCCACCGTGAAGTACAGGAGGAGTACAGGAGACTGCAGGAC
 TGGGATGCAGACGGCTCGATTGTCTCATACCTGCAAGATGCTGCACAAGGTTCTGGCAAGAGGAGGTCA
 CGCAAGGTCCACACTCATTCCAGGGAACAAGTACCATGACTGAAGGGCTAGAGCCCGGTGGATCTCAGGA
 GTACGAGAAGTCTGGTGTCTGTAAGTGAACACAGTGGACAGAACAGCCCGAGGCTGAGAGCTCCAG
 GCCGACAGGGACCGGAGGACGAAGGCCAAGAAGAGCAGGTGCAGGAGGCCAAGAACACCTTACCCAAG
 TGGTGCAGGGGAATGAGTTTTCAGAAATTTCCAGGGGAGCAGGTGACAGAGGAGCAATTCACGGATGAGCA
 GGGCAACATTGTACCAAGAAGATCATTGCAAGGTGGTTCGACAGATAGACTTGTCCAGCGCCGATGCC
 GCCCAGGAGCAGGAGGAGTGTAGAGGGGCCCTGGAGGATCCCAGTGAAGTGGAGGTCGATATTG
 ATTACTTTATGAAACACTCCAAGGATCACACCTCGACACCCAACCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216652 representing NM_020477
Red=Cloning site Green=Tags(s)

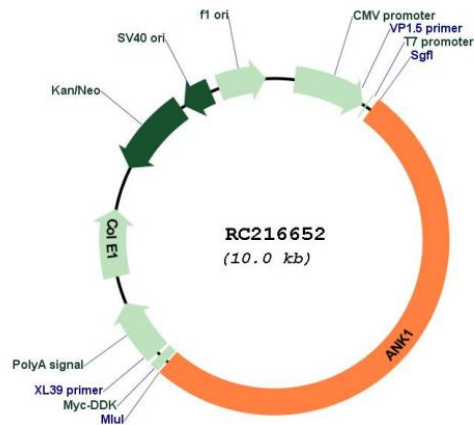
MPYSVGFREDAATSFLRAARSGNLDKALDHLRNGVDINTCNQNLNGLHLASKEGHVKMVVELLHKEII
LETTTKKNTALHIAALAGQDEVVREL VNYGANVNAQSQKGF TPLYMAAQENHLEVVKF LLENGANQNV
TEDGFTPLAVALQQGHENVVAHL INYGTGKGVRLPALHIAARNDDTRTAAVLLQNDPNPDVL SKTGFTPL
HIAAHYENLNVALLLNRGASVNF TPQNGITPLHIASRRGNVIMVRL LLDRGAQIETKTKDEL TPLHCAA
RNGHVRISEILLDHGAPIQAKTKNGL SPIHMAAQGDHLD CVRLLQYDAEIDDI TL DHL TPLHVAACHGH
HRVAKVLLDKGAKPNSRALNGF TPLHIAACKKNHVRVMELLLKTGASIDAVTESGL TPLHVASFMGHLP IV
KNLLQRGASPNVSNVKVETPLHMAARAGHTEVAKYLLQNKAKVNAKAKDDQTPLHCAARIGHTNMVKLL
ENNANPNLATTAGHTPLHIAAREGHVETVLALLEKEASQACMTKKGFTPLHVAAYGKVRVAELLERDA
HPNAAGKNGL TPLHVAVHHNLDIVKLLPRGGS PHSPAWN GYTP LHIAAKQNQVEVARSL LQYGGSANA
ESVQGVTPHLAAQEGHAEMVALL SKQANGNLGNK SGL TPLHLVAQEGHVPVADVLIKHGVMVDATTRM
GYTPLVHASYGNIKLKFL LQHQADVNAKTKL GYSPLHQAQQGHTDIVTLLKNGASPNEVSSDGTP
LAI AKRLGYISVTDV LKVVTD ETSFVLVSDKHRMSFPETVDEILDVSEDEGEELISFKAERRSDRVDEE
KELLDVFPKLDQVVE SPAIPRIPCAMPETVVIRSEEQEASKEYDEDSLIPSSPATETSDNISPVASPVH
TGFLV SFMVDARGGSMRGRHNGLRVVI PPRTCAAPTRITCRLVKPQKLS TPPPLAEEEGLASRIIALGP
TGAQFLSPVIVEIPHFASHGRGDREL VVLRSENGSVWKEHRSRYGESYLDQILNGMDEELGSL EEELEKCR
VCRITITDFPLYFVIMSRLCQDYDTIGPEGGSLSKLVPLVQATFPENAVTKRVKLALQAQVPVDELVTK
LLGNQATFSPIVTVPRRRKFHRPIGLRIPLPPSWTDNPRDSGEGD TTSRL LCVIGGTDQAQWEDITG
TTKL VYANECANFTTNVSARFWLSDCPRTAEAVNFATLLYKELTAVPYMAKFVIFAKMNDPREGRLRCYC
MTDDKVDKTLEQHENFVEVARSRDIEVLEGM SLFAELSGNLVPVKKAAQQR SFHFQSFRENRLAMPVKVR
DSSREPGGSLSFLRKAMKYEDTQHILCHLNITMPPCAKGS GAEDRRRTPTPLALRYSILSESTPGSLSGT
EQAEMKMAVISEHLGLSWAELARELQF SVEDINRIRVENPNSLLEQSVALLNLWVIREGQANMENLYTA
LQSIDRGEIVNMLEGSGRQSRNLKPD RRHTDRDYSLSPSQMNGHQRGQARITHSPTVSQVTERSQDRLQD
WDADGSIVSYLQDAAQGSWQEEVTQGPSFQGTSTMTEGLEPGGSQEYEVKLVSVSEHTWTEQPEAESSQ
ADRDRRQQGQEEQVQEAKNFTTQVVQGNFQNIIPGEQVTEEQFTDEQGNIVTKKIRKVVVRQIDLSSADA
AQEHEEVTVEGPLDPSLEVDIDYFMKHSKDHTSTPNP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_020477

ORF Size: 5157 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_020477.3](#)

RefSeq Size: 7754 bp

RefSeq ORF: 5160 bp

Locus ID: 286

UniProt ID: [P16157](#)

Cytogenetics: 8p11.21

Protein Families: Transmembrane

MW: 188.8 kDa

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]