OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC304777

ANK1 (NM_020478) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ANK1 (NM_020478) Human Untagged Clone
Tag:	Tag Free
Symbol:	ANK1
Synonyms:	ANK; SPH1; SPH2
Vector:	pCMV6 series
Fully Sequenced ORF:	>NCBI ORF sequence for NM_020478, the custom clone sequence may differ by one or more nucleotides ATGTGGACTTTCGTCACCCAGCTGTTGGTCACGCTGGTGCTGCTGAGCTTCTTCCTGGTC AGCTGTCAGAACGTGATGCACATTGTCAGGGGGTCCCTGTGCTTTGTGCTAAAGCACATC CACCAGGAGCTGGACAAGGAGCTGGGGGAGAGCGAGGGCCTCAGTGACGACGAGGAGACC ATCTCCACCAGGGTGGTCCGGCGGCGGGTCTTCCTGAAGGGGAATGAGTTTCAGAATATT CCAGGGGAGCAGGTGACAGAGGAGCAATTCACGGATGAGCAGGGCAACATTGTCACCAAG AAGATCATTCGCAAGGTGGTTCGACAGATAGACTTGTCCAGCGCCGATGCCGCCCAGGAG CACGAGGAGGTGGAGCTGAGAGGGAGTGGCCTACAGCCGGACCTGATAGAGGGCAGGAAG GGGGCGCAGATAGTGAAGCGGGCCAGCCTGAAAAGGGGGAAACAGTGA
Restriction Sites:	Please inquire
ACCN:	NM_020478
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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).

View online »

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_020478.2, NP_065211.2

RefSeq Size: 3584 bp

RefSeq ORF: 468 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]
Transcript Variant: This variant (5) lacks multiple 5' exons, but has an alternate 5' exon, which includes an AUG start codon, and it also has an alternate segment in the 3' coding region, which includes a stop codon, compared to variant 1. The resulting isoform (5, also referred to as Ank 1.5 and sAnk1) has a much shorter and distinct N-terminus and also has a distinct C-terminus, compared to isoform 1. This small isoform binds to the C-terminus of obscurin, a giant protein surrounding the contractile apparatus in striated muscle, and the binding may be essential for the proper alignment of the network sarcoplasmic reticulum.