

## Product datasheet for **RG227563**

### **ANK1 (NM\_001142445) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ANK1 (NM\_001142445) 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:** >RG227563 representing NM\_001142445  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGTGGACTTTCGTACCCAGCTGTTGGTCACGCTGGTGTCTGCTGAGCTTCTTCCTGGTCAGCTGTCAGA  
 ACGTGATGCACATTGTCAGGGGGTCCCTGTGCTTTGTGCTAAAGCACATCCACCAGGAGCTGGACAAGGA  
 GCTGGGGGAGAGCGAGGGCCTCAGTGACGACGAGGAGACCATCTCCACCAGGGTGGTCCGGCGGCGGGTC  
 TTCCTGAAGGGAATGAGTTTCAGAATATTCCAGGGGAGCAGGTGACAGAGGAGCAATTCACGGATGAGC  
 AGGGCAACATTGTCACCAAGAAGATCATTCGCAAGGTGGTTCGACAGATAGACTTGTCCAGCGCCGATGC  
 CGCCAGGAGCAGGAGGAGTACTGTAGAGGGGCCCTGGAGGATCCCAGTGAGCTGGAGGTCGATATT  
 GATTACTTTATGAAACACTCCAAGGATCACACCTCGACACCCAACCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG227563 representing NM\_001142445  
Red=Cloning site Green=Tags(s)

MWFVTQLLVTLVLLSFFLVSCQNMHIVRGSFCVLKHHQELDKELGESEGLSDDEETISTRVRRRV  
 FLKGNEFQNIPEGQVTEEQFTDEQGNIVTKKIIIRKVVRQIDLSSADAAQEHEEVTVEGPLDPSLEVDI  
 DYFMKHSKDHTSTPNP

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_001142445

**ORF Size:** 468 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\\_001142445.2](#)

**RefSeq Size:** 3244 bp

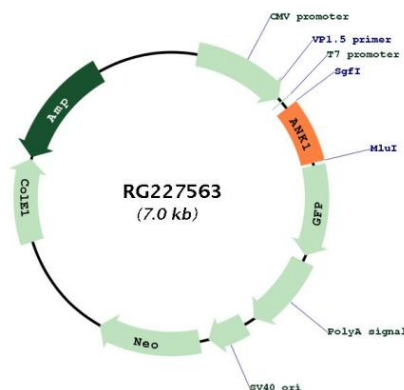
**RefSeq ORF:** 471 bp

**Locus ID:** 286

**UniProt ID:** [P16157](#)

<b>Cytogenetics:</b>	8p11.21
<b>Protein Families:</b>	Transmembrane
<b>Gene Summary:</b>	<p>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]</p>

## Product images:



Circular map for RG227563