

Product datasheet for **SC328088**

SHANK2 (NM_012309) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHANK2 (NM_012309) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHANK2
Synonyms:	AUTS17; CORTBP1; CTTNBP1; ProSAP1; SHANK; SPANK-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC328088 representing NM_012309. Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCCGCGCAGCCCAACATCCAGCGAGGACGAGATGGCCAGAGCTTCTCCGACTACTCCGTGGGGTCG
GAGTCAGACAGCTCAAAGAAGAGACCATCTATGACACGATCCGGGCCACTGCGGAGAAGCCGGCGGT
GCCAGGACGGAGGAGAGCCAGGGCAACACGCTGGTGATCCGCGTGGTCATCCATGACCTGCAGCAGACG
AAATGCATTTCGATTTAACCCGGATGCCACAGTGTGGGTGCAAAGCAGCGGATCCTGTGTACATTAACC
CAGAGTTTGAAGATGTCTGAACACGGCCTGTTCCAGCCGGCCAGCAATGGGCGTGACGGCAAGTTC
CTGGATGAGGAGCGGCTCCTGCGGAGTACCCACAGCCCGTGGGTGAGGGCGTTCCTTCCCTGGAGTTT
CGATACAAGAAGCGGGTGTATAAACAAGCCAGTCTCGATGAGAAACAGTTGGCCAAGCTCCACACGAAG
ACCAATCTGAAGAAATGCATGGATCACATTCAGCATCGCTTGGTGAGAGAAGATCACCAAGATGCTGGAC
CGAGGCCCTGGATCCCAATTTCCACGACCCGGAGACCCGGAGAGACCCCTGACCTTAGCCGCTCAGCTG
GACGACTCTGTGGAGGTCATCAAAGCTCTCAAAAATGGTGAGGACTCACCTGGACTTCCGTGCCAAAGAT
GGGATGACCGCCCTACACAAAGCTGCCGAGCGGAGGAACCAAGTTGCCCTGAAGACCCTTTTAGAGCTT
GGTGATCCCCAGATTATAAAGACAGTTACGGCCTCACCCGCTGTATCACACAGCCATCGTCGGAGGT
GATCCCTACTGCTGCGAGCTTCTCCTGCACGAACACGCCACTGTGTGCTGCAAAGATGAGAACGGCTGG
CACGAGATCCACCAGGCTGCAAGGTACGGGCAGTGCAGCACCTGGAGCACCTGTTCTACGGGGCA
GACATGAGTGCCCAAGATGCCTCGGGGAACACGGCCTTGACATCTGCGCCCTCTACAACAGGACAGC
TGTGCAAGAGTGCTTCTGTTTCGAGGCGGAAAATAAGGAGTTAAAAAACTACAACGCCAGACTCCATTT
CAGGTGGCCATAATAGCAGGCAACTTTGAGCTGGCAGAATACATCAAGAACCACAAGGAAACAGACATT
GTGCCCTTCCGAGAGGCCCGGCGTACTCCAACCGCCGGCGGGCCCCCAACACGCTGGCCGCCCCC
CGGGTCTGCTGCGCTCCAACAGTGACAACAACCTCAATGCCAGCGCTCCCGACTGGGCCGTCTGCTCC
ACGGCCACCTCGCACCGCAGCTGTACCCAGCTGCTGCAGCAGATGCCAGCAAGCCCGAGGGGGCC
GCGAAGACCATTGGGAGTACGTGCCCGGGCCCCGACGGCTCCCATCGCTCAACAGGCTGGGCGGC
GCAGGCGAGGACGCAAGAGGCCGACGCTCTTGGCATGTCGGGTGCGCTTTGCTCTTGGTGCCAAC
```



[View online >](#)

AAGGACTCACTCTCGGCCTTCGAGTACCCGGGGCCCAAGCGGAAGCTCTACAGTGCCGTGCCCGGGAGG
 CTCTTCGTGCTGTCAAGCCATACCAACCCCAAGTGGACGGCGAGATCCCCCTTACCAGCGGTGACAGG
 GTCAAAGTTCTGAGCATCGGTGAAGGGGGCTTCTGGGAAGGCAGCGCCCGCGGCCACATCGGATGGTTT
 CCGGCGGAGTGCCTGGAGGAGGTCCAGTGTAAAGCCAGGGACAGCCAGGCAGAAACCCGCGCTGACCCG
 AGCAAGAAGCTTTTCAGGCACTACACCTGGGCTCCTATGACAGCTTCGACACTCCAGTGACTGCATT
 ATTGAGGAGAAGACGGTGGTCTGCAGAAAAAGACAATGAGGGCTTTGGATTGCTGCTTCGAGGGGCC
 AAAGCTGACACACCCATTGAAGAATTACACCAACACCGGCTTTCCAGCCCTACAGTACCTGGAGTCC
 GTGGATGAAGGTGGGGTGGCGTGGCAAGCCGACTAAGGACCCGGGACTTCTTGATTGAGTTAAACAAT
 GAGAATGTTGTCAAAGTCGGCCACAGGCAGGTGGTGAACATGATCCGGCAGGGAGGGAATCACCTGGTC
 CTTAAGGTGGTACGGTGACCAGGAATCTGGACCCCGACGACACCCGAGGAAGAAAGCTCCCCCGCT
 CCAAAGCGGGCACCGACCACAGCCCTACCCTGCGCTCCAAGTCCATGACCTCGGAGCTGGAGGAGCTC
 GTGGATAAAGCCTCGGTCCGGAAGAAGAAGGATAAACCAGGAGAGATAGTCCCGGCTCCAAGCCCTCC
 CGCGCTGCTGAGAACATGGCTGTGGAACCGAGGGTGGCGACCATCAAGCAGCGGCCAGCAGCCGGTGC
 TCCCCGGCGGCTCAGACATGAACCTGTGTACGAACGCCAAGGAATCGCCGTGATGACGCCACTGTT
 CCTGGGAGCCAAAAGCCCCGTTTCTGGGCATCCCTCGAGGTACGATGCGAAGGCAGAAATCAATAGAC
 AGCAGAATCTTTCTATCAGGAATAACAGAGGAAGAGCGGAGTTTCTGGCTCCTCCAATGCTGAAGTTC
 ACCAGAAGCCTGTCCATGCCGGACACCTCTGAGGACATCCCCCTCCACCAGCTGTGCCCCCGTCC
 CCACCACCACCTTCCCCAACCACTTACAACCTGCCCAAGTCCCCAACTCCAAGAGTCTACGGGACGATT
 AAGCCTGCGTTCAATCAGAATTCGCCGCCAAGGTGTCCCCGCCACCAGGTCCGACACCGTGGCCACC
 ATGATGAGGGAGAAGGGGATGACTTCAGGAGAGAGCTGGACCGTACTCCTTGGACTCTGAAGACCTC
 TACAGTCGGAATGCCGGCCCGAAGCCAACTTCCGCAACAAGAGAGGCCAGATGCCAGAAAACCCATAC
 TCAGAGGTGGGAAGATCGCCAGCAAAGCCGTACGTCCCCGCCAAGCCGCCAGGCGGAAGGGGATG
 CTGGTGAAGCAGTCCAACGTGGAGGACAGCCCGGAGAAGACGTGCTCCATCCCTATCCCCACCATCATC
 GTGAAGGAGCCGTCACACAGCAGCAGCGCAAGAGCAGCCAGGGCAGCAGCATGGAGATCGACCCCCAG
 GCCCGGAGCCACCGAGCCAGCTGCGGCCTGACGAAAGCCTGACCGTCAGCAGCCCTTTGCCGCGCC
 ATCGCCGGAGCCGTCGCGACCGTGAAGAGCGGCTGGAAGCCAGGAGGAACCTCCCCGGCCTTCTCTCC
 ACAGACCTGGGGGATGAGGATGTGGCCTGGGGCCACCCGCCCCAGGACGCGGCCCTCCATGTTCCCC
 GAGGAGGGGGATTTTGTGACGAGGACAGCGCTGAGCAGCTGTATCCCCATGCCGAGTGCCACGCC
 AGGAGGCCGAAAACATTTCTGGGTGGCGCCGAGGCCAGTGTCCGGGTGAGGCTGGGAGGCCGCTG
 AATTCCACGTCCAAGGCCAGGGGCCGAGAGCAGCCAGCAGTGCCTCCGCGAGCAGCGGCACAGCC
 GGCCCCGGGAATTATGTCCACCCACTCACAGGGCGGCTGTTGATCCCAGCTCCCCGCTGGCCCTGGCA
 CTCTCCGCAAGGACCGACCCATGAAGGAGTCTAACAGGGACCCAAAGGGGAGGCCCCAAAGGCCGAC
 CTCAACAAAACCTTTTACATTGATACAAAATGCGGCCAGCCTGGATGCCGGTTCCTACGGTACC
 AGGCAGAACACCCGGGGACCCCTGAGGCGGCAGGAGACGGAGAACAAGTACGAGACCGACCTGGGCCGA
 GACCGGAAAGGCGATGACAAGAAGAATGCTGATCGACATCATGGACACGTCCCAGCAGAAGTCGGCT
 GGCCTGCTGATGGTGCACACCGTGGACGCCACTAAGCTGGACAACGCCCTGCAGGAAGAGGACGAGAAG
 GCAGAGGTGGAGATGAAGCCAGACAGCTCGCCGTCGAGGTGCCAGAAGGTGTTCCGAAACCGAAGGT
 GCTTTACAGATCTCCGCTGCCCCGAGCCACCACCGTCCCGGCAGAACCATCGTCGCGGTGGCTCC
 ATGGAAGAGCGGTGATTTTGCCATTCCGCATCCCTCCTCCCCCTGGCATCCGTGGACTCCGATGAG
 GATTTTATTTTTACAGAGCCATTGCCTCCTCCCCGGAATTTGCAAATAGTTTTGATATCCCCGATGAC
 CGGGCAGCTTCTGTCCCGCTCTCTCAGACTTAGTGAAGCAGAAGAAAAGCGACACCCCTCAGTCCCT
 TCGTTGAACTCCAGCCAACCAACCACTCTGCAGACAGCAAGAAGCCAGCCAGTCTTTCAAACCTGTCTG
 CCTGCCTCATTCTGCCACCCCTGAAAGCTTTGACGCCGTGCGGACTCTGGGATCGAGGAGGTGGAC
 AGCCGGAGTAGCAGCGACCACCACTCGAGACGACCAGCACTATCTCCACCGTGTCTAGCATCTCCACC
 CTGTCTTCCGAAGGTGGAGAGAATGTGGACACCTGCACAGTCTATGCAGATGGGCAAGCATTTATGGTT
 GACAAACCCCAAGTACCTCCTAAGCCAAAATGAAGCCCATCATTCACAAAAGCAATGCACTTTATCAA
 GACGCGCTCGTGAAGAAGATGTAGATAGCTTTGTTATCCCCCGCCCGTCCCCCGCCCCGCGGGC
 AGTGCCAGCCTGGGATGGCCAAGGTCTCCAGCCAAGGACCTCAAGTTGTGGGGCAGCTCACAGAG
 ATCAAAAGCCGATTCTCTCAGGCCAAAAGGCAAACGTTATTAGTGAATTGAACTCTATCTACAGCAA
 ATGAACCGAGAGAAAATTGGCAAAGCCGGGGGAAGGACTGGATTACCAATGGGAGCCAAGTCCGCCAGC
 CTCGCTCCAAGAAGCCGGAGATCATGAGCACCATCTCAGGTACACGGAGCACGAGGTACCTTCACT
 GTTCGCCCGGCACCTCCAGCCATCACCTGCAGAGCCGGCCCCCGACTATGAAGCAGGACCTCA

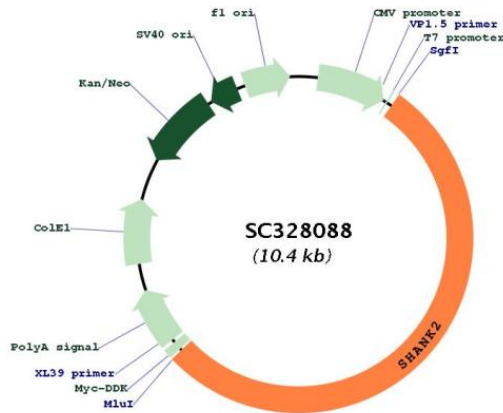
```
GGAACAAGACGTGCCCAAGCCCTGTGGTCTCGCCAACAGAGATGAACAAAGAGACCCTGCCCGCCCC
CTGTCTGCTGCCACCGCCTCTCCTTCTCCCGCTCTCTCAGATGTCTTTAGCCTTCCAAGCCAGCCCCCT
TCTGGGGATCTATTTGGCTTGAACCCAGCGGGACGAGTAGGTCGCCATCCCCCTCGATACTGCAACAG
CCAATCTCAAATAAGCCTTTTACAATAAACCCTGTCCACCTGTGGACTAAACCAGATGTGGCCGATTGG
CTGAAAGTCTAACTTGGGTGAACATAAAGAGGCCTTCATGGACAATGAGATCGATGGCAGTCACTTA
CCAAACCTGCAGAAGGAGACCTCATCGATCTTGGGTAACCTCGAGTCGGGCACAGAATGAACATAGAA
AGGGCTTTGAAACAGCTGCTGGACAGATAA
```

```
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites:

Sgfl-MluI

Plasmid Map:



ACCN:

NM_012309

Insert Size:

5550 bp

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).

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_012309.4](#)

RefSeq Size: 10675 bp

RefSeq ORF: 5550 bp

Locus ID: 22941

UniProt ID: [Q9UPX8](#)

Cytogenetics: 11q13.3-q13.4

MW: 201.3 kDa

Gene Summary: This gene encodes a protein that is a member of the Shank family of synaptic proteins that may function as molecular scaffolds in the postsynaptic density of excitatory synapses. Shank proteins contain multiple domains for protein-protein interaction, including ankyrin repeats, and an SH3 domain. This particular family member contains a PDZ domain, a consensus sequence for cortactin SH3 domain-binding peptides and a sterile alpha motif. The alternative splicing demonstrated in Shank genes has been suggested as a mechanism for regulating the molecular structure of Shank and the spectrum of Shank-interacting proteins in the postsynaptic densities of the adult and developing brain. Alterations in the encoded protein may be associated with susceptibility to autism spectrum disorder. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]
Transcript Variant: This variant (1) represents the longest transcript and encodes the longer isoform (1).