

Product datasheet for **SC305939**

SHANK2 (NM_133266) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | SHANK2 (NM_133266) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | SHANK2 |
| Synonyms: | AUTS17; CORTBP1; CTTNBP1; ProSAP1; SHANK; SPANK-3 |
| Vector: | <u>pCMV6 series</u> |
| Fully Sequenced ORF: | >NCBI ORF sequence for NM_133266, the custom clone sequence may differ by one or more nucleotides |

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ATGATGATGAACGTCCCCGGCGGAGGAGCGGCCGCGGTGATGATGACGGGCTACAATAAT
GGTCGCTGTCCCCGGAATTCTCTCTACAGTGACTGCATTATTGAGGAGAAGACGGTGGTC
CTGCAGAAAAAGACAATGAGGGCTTTGGATTCTGCTTCGAGGGGCCAAAGCTGACACA
CCCATTGAAGAATTCACACCAACACCGGCTTTCCAGCCCTACAGTACCTGGAGTCCGTG
GATGAAGGTGGGGTGGCGTGGCAAGCCGGACTAAGGACCGGGGACTTCTTGATTGAGGTT
AACAAATGAGAATGTTGTCAAAGTCGGCCACAGGCAGGTGGTGAACATGATCCGGCAGGGA
GGGAATCACCTGGTCCTTAAGGTGGTCACGGTGACCAGGAATCTGACCCCGACGACACC
GCCAGGAAGAAAGCTCCCCGCCTCCAAAGCGGGCACCGACCACAGCCCTCACCTGCGC
TCCAAGTCCATGACCTCGGAGCTGGAGGAGCTCGTGGATAAAGCCTCGGTCCGGAAGAAG
AAGGATAAAACCCGAGGAGATAGTCCCGGCTCCAAGCCCTCCCGCGCTGCTGAGAATG
GCTGTGGAACCGAGGGTGGCGACCATCAAGCAGCGGCCAGCAGCCGGTCTTCCCGCG
GGCTCAGACATGAACTCTGTGTACGAACGCCAAGGAATCGCCGTGATGACGCCACTGTT
CCTGGGAGCCAAAAGCCCCGTTTCTGGGCATCCCTCGAGGTACGATGCGAAGGCAGAAA
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CTCCACCGCAGTCTGTGCCCGTCCCCACCACCCTTCCCAACCACTTACAACCTGC
CCCAAGTCCCAACTCCAAGAGTCTACGGGACGATTAAGCCTGCGTTCAATCAGAATTCT
GCCGCAAGGTGTCCCCGCCACCAGGTCGACACCGTGGCCACCATGATGAGGGAGAAG
GGGATGTACTTCAGGAGAGAGCTGGACCGCTACTCCTTGGACTCTGAAGACCTCTACAGT
CGGAATGCCGGCCGCAAGCCAACCTTCCGCAACAAGAGAGGCCAGATGCCAGAAAACCA
TACTCAGAGGTGGGAAGATCGCCAGCAAAGCCGTCTACGTCCCCGCAAGCCCGCCAGG
CGGAAGGGGATGCTGGTGAAGCAGTCCAACGTGGAGGACAGCCCCGAGAAGACGTGCTCC
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CAGGGCAGCAGCATGGAGATCGACCCCCAGGCCCGGAGCCACCGAGCCAGCTGCGGCCT
GACGAAAGCCTGACCGTACGACAGCCCTTTGCCGCGCCATCGCCGGAGCCGTCCGCGAC
CGTGAGAAGCGGCTGGAAGCCAGGAGGAACTCCCCGGCCTTCTCTCCACAGACCTGGGG
GATGAGGATGTGGGCTGGGGCCACCCGCCCCAGGACCGGCCCTCCATGTTCCCGGAG
GAGGGGGATTTTGTGACGAGGACAGCGCTGAGCAGCTGTATCCCCATGCCGAGTGCC
ACGCCCAGGGAGCCCGAAAACATTTCTGGGTGGCGCCGAGGCCAGTGTCCGGGTGAG

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GCTGGGAGGCCGCTGAATTCCACGTCCAAAGCCCAGGGGCCGAGAGCAGCCCAGCAGTG
CCCTCCGCGAGCAGCGGCACAGCCGGCCCGGGAATTATGTCCACCCACTCACAGGGCGG
CTGCTTATCCCAGCTCCCCGCTGGCCCTGGCACTCTCCGCAAGGGACCGAGCCATGAAG
GAGTCTCAACAGGGACCCAAAGGGGAGGCCCAAGGCCGACCTCAACAAACCTCTTTAC
ATTGATACCAAAATGCGGCCAGCCTGGATGCCGGCTTCCTACGGTCACCAGGCAGAAC
ACCCGGGACCCCTGAGGCGGCAGGAGACGGAGAACAAGTACGAGACCGACCTGGGCCGA
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AAGTCGGCTGGCCTGCTGATGGTGCACACCGTGGACGCCACTAAGCTGGACAACGCCCTG
CAGGAAGAGGACGAGAAGGCAGAGGTGGAGATGAAGCCAGACAGCTCGCCGTCGAGGTG
CCAGAAGGTGTTCCGAAACCGAAGGTGCTTTACAGATCTCCGCTGCCCCGAGCCACC
ACCGTGCCCGGCAGAACCATCGTCGCGGTGGGCTCCATGGAAGAGGCGGTGATTTTGCCA
TTCCGCATCCCTCCTCCCTCTGGCATCCGTGGACTTGGATGAGGATTTTATTTTACA
GAGCCATTGCCTCCTCCCTGGAATTTGCAAATAGTTTTGATATCCCGATGACCGGGCA
GCTTCTGTCCCGCTCTCTCAGACTTAGTGAAGCAGAAGAAAAGCGACACCCCTCAGTCC
CCTTCGTGAACTCCAGCCAACCAACCACTCTGCAGACAGCAAGAAGCCAGCCAGTCTT
TCAAACCTGTCTGCCTGCCTCATTCTGCCACCCCTGAAAGCTTTGACGCGCTCGCCGAC
TCTGGGATCGAGGAGGTGGACAGCCGGAGTAGCAGCGACCACCACCTCGAGACGACCAGC
ACTATCTCCACCGTGTCTAGCATCTCCACCCTGTCTTCCGAAGGTGGAGAGAATGTGGAC
ACCTGCACAGTCTATGCAGATGGCAAGCATTTATGGTTGACAAACCCCACTACCTCCT
AAGCAAAAATGAAGCCCATCATTACAAAAGCAATGCACTTTATCAAGACGCGCTCGTG
GAAGAAGATGTAGATAGCTTTGTTATCCCCCGCCGCTCCCCGCCCGCCGGGCGAGT
GCCAGCCTGGGATGGCAAGGTTCTCCAGCCAAGGACCTCCAAGTTGTGGGCGACGTC
ACAGAGATCAAAAAGCCCGATTCTCAGGCCCAAAGGCAACGTTATTAGTGAATTGAAC
TCTATCCTACAGCAAAATGAACCGAGAGAAATTGGCAAAGCCGGGGGAAGGACTGGATTCA
CCAATGGGAGCCAAGTCCGCCAGCCTCGCTCCAAGAAGCCGGAGATCATGAGCACCATC
TCAGGTACACGGAGCAGCAGGTCACCTTCACTGTTCCGCCCGGCACCTCCAGCCCATC
ACCCTGCAGAGCCGGCCCGGACTATGAAAGCAGGACCTCAGGAACAAGACGTGCCCA
AGCCCTGTGGTCTCGCCAACAGAGATGAACAAAGAGACCTGCCCGCCCGCTGTCTGCT
GCCACCGCTCTCCTTCTCCGCTCTCAGATGTCTTTAGCCTTCCAAGCCAGCCCGCT
TCTGGGGATCTATTTGGCTTGAACCCAGCGGGACGAGTAGGTCGCCATCCCGCTGATA
CTGCAACAGCCAATCTCAAATAAGCCTTTTACAATAAACCTGTCCACCTGTGGACTAAA
CCAGATGTGGCCGATTGGCTGGAAGTCTAAACTTGGGTGAACATAAAGAGGCCTTCATG
GACAATGAGATCGATGGCAGTCACTTACCAAACCTGCAGAAGGAGGACCTCATCGATCTT
GGGGTAACTCGAGTCGGGCACAGAATGAACATAGAAAGGGCTTTGAAACAGCTGCTGGAC
AGATAA
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- Restriction Sites:** Please inquire
- ACCN:** NM_133266
- 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_133266.1](#), [NP_573573.1](#)

RefSeq Size: 2050 bp

RefSeq ORF: 846 bp

Locus ID: 22941

UniProt ID: [Q9UPX8](#)

Cytogenetics: 11q13.3-q13.4

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 (2) differs in its 5' UTR, lacks a portion of the 5' coding region, and uses an alternate start codon, compared to variant 1. The encoded isoform (2) has a shorter and distinct N-terminus, compared to isoform 1.