

Product datasheet for **RG229453**

SHANK2 (NM_012309) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHANK2 (NM_012309) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SHANK2
Synonyms:	AUTS17; CORTBP1; CTTNBP1; ProSAP1; SHANK; SPANK-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG229453 representing NM_012309 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGCGCAGCCCAACATCCAGCGAGGACGAGATGGCCAGAGCTTCTCCGACTACTCCGTGGGGTCCG
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CCGCAGCCTCTCTGGCATGTCGGGTGCGCTTTTGTCTTGGTGCCAACAAGGACTCACTCTCGGCCCTTCG
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG229453 representing NM_012309
 Red=Cloning site Green=Tags(s)

MPRSPTSSEDEMAQSFSDYSVSGSESDSSKEETIYDITIRATAEKPGGARTEESQGNLTVIRVVIHDLQQTKCIRFNPDATVWVAKQRILCTLTQSLKDVLNYGLFQPASNGRDGKFLDEERLLREYPQPVGEGVPSLEFRYKRVYKQASLDEKQLAKLHTKTNLKKCMDHIQHRLVEKITKMLDRGLDPNFHDPETGETPLTLAAQLDDSEVIKALKNNGAHLDFRAKDGMTALHKAARARNQVALKLLELGASPDYKDSYGLTPLYHTAIVGGDPYCCELLHEHATVCCCKDENGWHEIHQACRYGHVQHLEHLLFYGADMSAQNASGNTALHICALYNQDSCARVLLFRGGNKELKNYNSQTPFQVAIIAGNFELAEYIKNHKETDIVPFREAPAYSNNRRRPPNTLAAPRVLLRSNSDNNLNASAPDWAVCSTATSHRSLSPQLLQMPSPKPEGAAKTIGSYVPGPRSRSPSLNRLGGAGEDGKRPQPLWHVGSPPFALGANKDSLSAFEYGPGRKRLYSAVPGRLFVAVKPYQPQVDGEIPLHRGDRVKVLSIGEGGWEGSARGHIGWFFPAECVEEVQCKPRDSQAETRADRSKFLFRHYTVGSYDSFDTSSDCIEEEKTVVLQKKDNEGFVLRGAKADTPIEEFTPTPAFPALQYLESVDEGGVAWQAGLRTGDFLIEVNNENVVKVGHRRQVVMNIRQGGNHLVLKVVTVTRNLDPDARTARKKAPPPKRAPTTALTLRSKSMSELEELVDKASVRKKDKPEEIVPASKPSRAAENMAVEPRVATIKQRSSRCFPAGSDMNSVYERQGIAMTPTVPGSPKAPFLGIPRGTMRQKSIDSRIFLSGITEEERQFLAPPMLKFRSLMPDTSIEDIPPPQSVPPSPPPSPPTTYNCPKSPTPRVYGTIKPAFNQNSAAKVSPATRSDTVATMMREKGMFRRELDYSLDSEDLYSRNAGPQANFRNKRGMPEPENPYSEVGKIASKAVYVPAKPARRKGMVKQSNVEDSPEKTCIPIPTIIVKEPSTSSSGKSSQSSMEIDPQAPPPSRLRPDESLTVSSPFAAAIAGAVRDREKREARRNSPAFLSTDLGDEDVGLGPPAPRTRPSMFPEEGDFADEDSAEQLSSPMPSATPREPENHFVGGAEASAPGEAGRPLNSTSKAQGPSSPAVPSASSGTAGPGNYVHPLTGRLLDPSSPLALAL SARDRAMKESQGGPKGEAPKADLNKPLYIDTKMRPSLDAGFPTVTRQNTNRGRLRRQETENKYETDLGRDRKGDDKKNMLIDIMDTSQKKSAGLLMVHTVDATKLDNALQEDEKAIEVEMKPDSSPSEVPEGVSETEGALQISAAPEPTTVPGRTIVAVGSMEEAVILPFRIPPPPLASVDLDEDFIFTEPLPPPLEFANSFDIPDDRAASVPALSDLVKQKSDTPQSPSLNSSQPTNSADSKKPAASLNSCLPASFLPPPSFDAVADSGIEEVDSRSSSDHLETTSTISTVSSI STLSEGGENVDTCTVYADGQAFMVDKPPVPPKPKMKPIIHKSNALYQDALVEEDVDSFVIPPAPPPPPGSAQPGMAKVLQPRTSKLGWDVTEIKSPILSGPKANVISELNSILQQMNREKLAKPGEGLDSPMGAKSASLAPRSPEIMSTISGTRSTTVFTVRPGTSQPIITLQSRPPDYESRTSGTRRAPSPVVSPTMKNKETLPAPLSAATASPPALSDVFLSPSQPPSGDLFGLNPAGRSRSPSILQQPIISNKPFTTKPVHLWTKPDVADWLESLNLGEHKEAFMDNEIDGSHLPNLQKEDLIDLGVTRVGHMNIERALKQLLDR

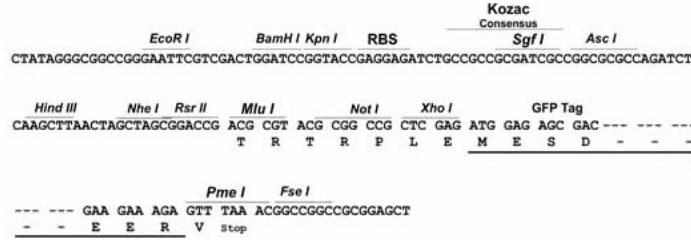
TRTRPLE – GFP Tag – V

Restriction Sites:

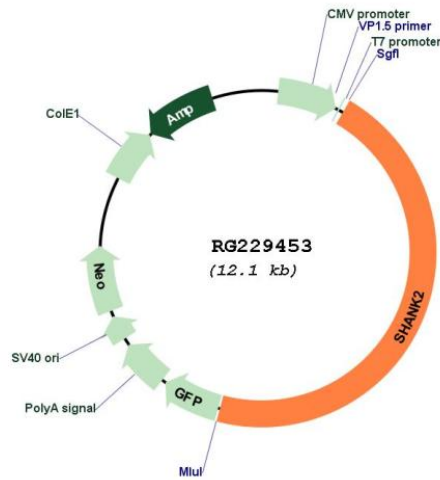
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_012309
 ORF Size: 5547 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:	<ol style="list-style-type: none">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_012309.5
RefSeq Size:	10641 bp
RefSeq ORF:	5550 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]