

Product datasheet for **RG214547**

TXNDC2 (NM_001098529) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	TXNDC2
Synonyms:	SPTRX; SPTRX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG214547 ORF sequence, codon optimized.

Due to the complexity of NM_001098529, the ORF clone is codon optimized for mammalian Expression.

The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCG

ATGGACGTCGACAAAGAGCTGGGGATGGAGTCTGTCAAGGCCGGCGCCAGCGGCAAACCCGAGATGAGGT
TGGGAAGTCAAGGAGGAGACATCAGAGGGTATGCAAAATGAGTCTTCCCTCCTCGTCTGTCAAGCAATGT
CCCTCTCTTGGCCCTGGAGTCTTGGAGATTGCCAGGCTAAAGAGAAGGCCTTCTGCCAATGGTATCA
CATACATTCCATATGAGAACCAGGAATCCGATGCAAGCCAGGAAGGCGACGATCTTCAAAAAGCTCCG
CCAACACTTCTACCCCAAGCAGGATGATAGCCCTAAATCTAGTGAGGAAACAATCCAGCCAAAAGAGGG
TGACATCCCTAAAGCCCCGAGGAACTATACAGTCTAAAAAGAGGACTTGCCCAAGTCCAGTGAAAAG
GCCATCCAGCCAAAGGAATCTAACATCCCGAAGAGCTCAGCAAAGCCAATCCAGCCTAAGCTCGGTAATA
TTCCAAAAGCCTCCGTAACCCCTCTCAGCCGAAAGAGGGCGATATTCTAAAGCCCAGAAGAGACAAT
TCAATCTAAAAAGGAAGACCTGCCAAAAAGTAGTGAAGAAGCTATACAGCCCAAGGAAGGCACATACCT
AAGAGCAGTGCTAAGCCCATCCAGCCAAACTCGGCAACATTGCTAAGACCAGTGTGAAGCCATCCAGC
CTAAAGAGAGTGATATTCAAAGTCCCCGAGGAGACAATACAGCCCAAGGAGGGCGACATCCCAAGTC
AAGTGCTAAACCAATCCAGCCTAAGCTTGGTAACATCCCAAAGGCTTCCGTGAAACCATCCAGCCTAAA
GAGGGCGATATTAGTAAGTCTCCTGAAGAGGCAATTCAGCCCAAGGAGGGCGACCTCCCAAAATCACTTG
AAGAAGCTATTAGCCAAAAGAGGGTGACATTCGAAATCCCCTGAAGAAGCCATCCAACCAAGGAGGG
CGACATCCCAAGTCCCTGGAAGAGGCTATTAGCCAAAAGAAGGGGATATCCCAAAATCCCCGAAGAG
ACAATTCAGCCTAAGAAGGGCGACATTCCAAGAGCCCCGAAGAAGCAATCCAGCCCAAGGAGGGAGACA
TTCCTAAGAGTCTTAAACAGGCCATCCAGCCTAAGGAAGGCGATATTCGGAAGTCTTTGGAGGAGGCCAT
TCCGCCTAAAGAAATTGATATCCCTAAGTCACCAGAGGAAACAATACAGCCCAAGGAGGACGATTACCT
AAATCACTCGAGGAAGCAACCCCCAGCAAGGAGGTGACATTCTGAAACCAGAAGAAGAACTATGGAGT
TTCCTGAAGGCGACAAAGTTAAAGTATTCTGTCCAAGGAAGATTTTGAAGGCGTCTCTGAAGGAAGCCGG
CGAGAGACTGGTGCCGTCGATTTCTCAGCCACATGGTGCGGGCCCTGTAGGACGATCAGGCCTTTCTTC
CACGCTCTGTCCGTGAAGCATGAGGACGTTGTCTTTCTGGAGGTGGATGCAGACAACGTGAGGAAGTGG
TCAGGGAATGCGCTATTATGTGTGTGCCAACCTTCAATTTTATAAAAAGGAAGAGAAGTTGATGAAGT
GTGTGGTGCTCTGAAGGAAAACTGGAAGCGGTATCGCTGAACCTAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG214547 representing NM_001098529

Red=Cloning site Green=Tags(s)

MDVDKELGMESVKAGASGKPEMRLGTQEETSEGDANESSLLVLSNVPLLALEFLEIAQAKEKAFLPMVS
HTFHMRTESDASQEGDDLPKSSANTSHPKQDDSPKSSEETIQPKEGDIPKAPEETIQSKKEDLPKSSEK
AIQPKESNIPKSSAKPIQPKLGNIPKASVKPSQPKEGDIPKAPEETIQSKKEDLPKSSEETIQPKEGDIP
KSSAKPIQPKLGNIAKTSVKPSQPKESDIPKSPEETIQPKEGDIPKSSAKPIQPKLGNIPKASVKPSQPK
EGDISKSPEEAIQPKEGDLPKSLEEAIQPKEGDIPKSPEEAIQPKEGDIPKSLEEAIQPKEGDIPKSPEE
TIQPKKGDIPKSPEEAIQPKEGDIPKSPQAIQPKEGDIPKSLEEAIQPKEDIPKSPEETIQPKEDDSP
KSLEEATPSKEGDILKPEEETMEFPEGDKVKVILSKEDFEASLKEAGERLVAVDFSATWCGPCRTIRPFF
HALSVKHEDVVFLEVDADNCEEVRECAIMCVPTFQFYKKEEKVDEL CGALKEKLEAVIAELK

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001098529

ORF Size: 1659 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.

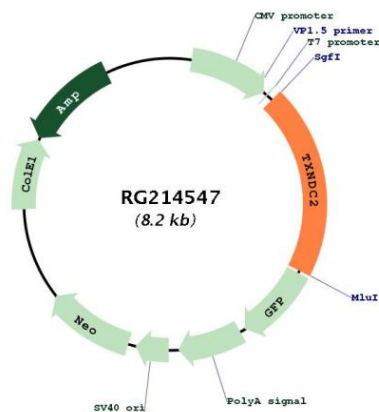
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001098529.1](#), [NP_001091999.1](#)

RefSeq Size: 2175 bp

RefSeq ORF:	1662 bp
Locus ID:	84203
UniProt ID:	Q86VQ3
Cytogenetics:	18p11.22
Protein Families:	Druggable Genome
Gene Summary:	Probably plays a regulatory role in sperm development. May participate in regulation of fibrous sheath (FS) assembly by supporting the formation of disulfide bonds during sperm tail morphogenesis. May also be required to rectify incorrect disulfide pairing and generate suitable pairs between the FS constituents. Can reduce disulfide bonds in vitro in the presence of NADP and thioredoxin reductase.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG214547