

Product datasheet for SC115515

TPX2 (NM_012112) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TPX2 (NM_012112) Human Untagged Clone
Tag:	Tag Free
Symbol:	TPX2
Synonyms:	C20orf1; C20orf2; DIL-2; DIL2; FLS353; GD:C20orf1; HCA519; HCTP4; p100; REPP86
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_012112 edited
 GAATTCGGCACGAGGGCGAGGCTAGGTGAGCCGTGGGAAGAAAAGGGGAGCAGCTAGGG
 CGCGGGTCTCCCTCCTCCCGAGTTTGGAACGGCTGAAGTTCACCTTCCAGCCCCTAGGC
 CCGTTCGCGCCGCTAGGCCTGGCTTCTGAGGCGGTTGCGGTGCTCGGTCCGCCCTAGGC
 GGGCAGGGTGGCAGCAGGGGCTTCGGGCCACGCTTCTTTGGCGACAGGATTTTGTGT
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 TTCTTGATACATATTTGCCAGACTTCAAGATTTCAAAAAGGGGTGAAAGAGAAGATTGC
 AACTTTGAGTCAGACCTGTAGGCCTGATAGACTGATTAACCACAGAAGGTGACCTGCTG
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 TCCGCACAGATGAGCGAATCAAACAACATCCTAAGAACCAGGAGGAATATAAGGAAGTGA
 ACTTTACATCTGAACTACGAAAGCATCCTTCATCTCCTGCCCGAGTGACTAAGGGATGTA
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5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_012112 unedited
GAAGCACTTCGGATTTGTAACCCGNATTCATATNAGGGCGGACGCCAATTCGGCACGA
GGGCGAGGCTAGGTGAGCCGTGGAAAGAAAAGAGGAGCAGCTAGGGCGCGGGTCTCCCTC
CTCCCGGAGTTTGAACCGCTGAAGTTCACCTTCCAGCCCCTAGCGCCGTTGCGCGCGCT
AGGCCTGGCTTCTGAGGCGGTTGCGGTGCTCGGTGCGCTTTTATGCGGGGCAGGGTGCGA
GCAGGGGCTTCGGGCCACGCTTCTTGGCGACAGGATTTTGTGTGAAGTCCGTCCGGG
AAACGGAGGAAAAAAGAGTTGCGGGAGGCTGTGCGCTAATAACGGTTCTTGATACATAT
TTGCCAGACTTCAAGATTTAGAAAAGGGGTGAAAGAGAAGATTGCAACTTTGAGTCAGA
CCTGTAGGCTGATAGACTGATTAACACAGAAAGGTGACCTGCTGAGAAAAGTGGTACA
AATACTGGGAAAAACCTGCTCTTCTGCGTTAAGTGGGAGACAATGTCACAAGTTAAAAGC
TCTTATTCCTATGATGCCCCCTCGGATTCATCAATTTTTCATCCTTGGATGATGAAGGA
GATACTCAAACATAGATTTCATGGTTTGGAGAGAAGGCCAATTTGGAGAATAAGTTACTG
GGGAAGAATGAACTGGAGGGCTTTTTTTCAGGGCAAACTCCTTTGAGAAAAGGCTAATCTT
CAGCAAGCTATTGTCACACCTTTGAAACCAGTTGANCACTTACTACAAAGAGGCAGAA
AAAGAAAATCTTGTGGAACAATCCATTCCGTCAAATGCTTGTCTTCCCTGGAAGTTTGA
GCAGCCATATCAAGANAACCTCCAGCCAGCCTCAGAAN

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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_012112 unedited CAGTGNAGATCGAGTTTTTTTTTTTTTTTTTTTGGAGGAAAGACAAACGTATTTATTCCAG GCCAGGTCTTAAATGCACACTGCACGGTTCCTGTTGTTATCAGCACCAGTAAGGAAAG AACGTGCCTAACGGCAGCCCCACCCAGAGCCTGCTACGTGGCTGCTGTGAGGCTCCCA TGAATCCACGCAGTCTTCTTTCTCACTGGTGCAGTTGGTGGGTTTTCTACCCTCACAGC AAAGGGATCCTTAACTATAAATTCACGGTATGCAGAGAAGAGGACAGAATCTGATTACT GATTGTTCCCTCATTTAAACCATGACTTAATCTCTATCTTAGGATTTAACTATCTTTATTT TCTGGTTAAAATTTTTAAAAAAGTGGGAGAGGGTGAGAGTCGTAAGGGGCAATAGCAA TAGAGATTACACTGTGCTGACACAGAGACTAAATTCTAGTCAGAGTGAAGACCCATATAA AAGCCGGCTGATGGTTTAAAGGAAGTAACTACATGGAGTCTAATCGAGACATTCATGAG TTACATCTCATTATTAGCCTTAGTAATGTAAGAAAACAATTCTCAACAAAAGTGGAGTCC ACAGTTGTCAAGTATGCTTTCTCAGGCACGGTAGGTAAGTCTGGAGAAATGGGTTCT CTCCATGCCCAATGACAAAGCAAGACGGTCTANGTTTGAGGTTAAGAGCANGTCCCATT GCCGGGGGTATCCGAGCTCACAGCTGAGTTACCAGTGAATCGAGTGGAGATTTGGGAG AACAGGACAGTCAGAGCTGTCACTTGACTTATCTCCAACCTGTACTTGCCATTGGATTG CCTATGCACAGTTTTCTCGTAGCTGGCAGCTCTTTTTCTGCCTCTCCGGAGCGGCCTC CCTACTGCTGGCTTTTGGCTTTACTAACAATTTTTTCAGTCTGCGGTTTGGTTTTTAANA CCATGAAAGTCCGACCAAAAA
Restriction Sites:	NotI-NotI
ACCN:	NM_012112
Insert Size:	3460 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).
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_012112.4 , NP_036244.2
RefSeq Size:	3685 bp
RefSeq ORF:	2244 bp
Locus ID:	22974
UniProt ID:	Q9ULW0
Cytogenetics:	20q11.21
Protein Families:	Druggable Genome, Stem cell - Pluripotency

Gene Summary:

Spindle assembly factor required for normal assembly of mitotic spindles. Required for normal assembly of microtubules during apoptosis. Required for chromatin and/or kinetochore dependent microtubule nucleation. Mediates AURKA localization to spindle microtubules (PubMed:18663142, PubMed:19208764). Activates AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation (PubMed:18663142, PubMed:19208764). TPX2 is inactivated upon binding to importin-alpha (PubMed:26165940). At the onset of mitosis, GOLGA2 interacts with importin-alpha, liberating TPX2 from importin-alpha, allowing TPX2 to activate AURKA kinase and stimulates local microtubule nucleation (PubMed:26165940).[UniProtKB/Swiss-Prot Function]