

Product datasheet for **SC117528**

Securin (PTTG1) (NM_004219) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Securin (PTTG1) (NM_004219) Human Untagged Clone
Tag:	Tag Free
Symbol:	Securin
Synonyms:	EAP1; HPTTG; PTTG; TUTR1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC117528 sequence for NM_004219 edited (data generated by NextGen Sequencing)

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ATGGCTACTCTGATCTATGTTGATAAGGAAAATGGAGAACCAGGCACCCGTGTGGTTGCT
AAGGATGGGCTGAAGCTGGGGTCTGGACCTTCAATCAAAGCCTTAGATGGGAGATCTCAA
GTTTCAACACCACGTTTTGGCAAACGTTTCGATGCCCCACCAGCCTTACCTAAAGCTACT
AGAAAGGCTTTGGGAAGTGTCAACAGAGCTACAGAAAAGTCTGTAAGACCAAGGGACCC
CTCAAACAAAAACAGCCAAGCTTTTCTGCCAAAAAGATGACTGAGAAGACTGTAAAGCA
AAAAGCTCTGTTCTGCCTCAGATGATGCCTATCCAGAAATAGAAAAATTCTTCCCTTC
AATCCTCTAGACTTTGAGAGTTTTGACCTGCCTGAAGAGCACCAGATTGCGCACCTCCCC
TTGAGTGGAGTGCCTCTCATGATCCTTGACGAGGAGAGAGCTTGAAAAGCTGTTTCAG
CTGGGCCCCCTTCACCTGTGAAGATGCCCTCTCCACCATGGGAATCCAATCTGTTGCAG
TCTCCTTCAAGCATTCTGTGACCCCTGGATGTTGAATTGCCACCTGTTTGTGTGACATA
GATATTTAA
```

Clone variation with respect to NM_004219.2



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004219 unedited
 GGGGGTCGGATTTGTATACGACTCCTATAGGCGGCCGCGNAATTCGCACGAGGGCTGTTA
 AGACCTGCATAATCCAGATGGCTACTCTGATCTATGTTGATAAGGAAAATGGAGAACCAG
 GCACCCGTGTGGTTGCTAAGGATGGGCTGAAGCTGGGGTCTGGACCTTCAATCAAAGCCT
 TAGATGGGAGATCTCAAGTTTCAACACCACGTTTTGGCAAACGTTTCGATGCCCCACCAG
 CCTTACCTAAAGCTACTAGAAAGGCTTTGGAACTGTCAACAGAGCTACAGAAAAGTCTG
 TAAAGACCAAGGGACCCCTCAAACAAAAACAGCCAAGCTTTTCTGCCAAAAAGATGACTG
 AGAAGACTGTTAAAGCAAAAAGCTCTGTTCTGCCTCAGATGATGCCTATCCAGAAATAG
 AAAAAATCTTTCCCTTCAATCCTCTAGACTTTGAGAGTTTTGACCTGCCTGAAGAGCACC
 AGATTGCGCACCTCCCCTTGAGTGGAGTGCCTCTCATGATCCTTGACGAGGAGAGAGAGC
 TTGAAAAGCTGTTTCAGCTGGGCCCCCTTACCTGTGAAGATGCCCTCTCCACCATGGG
 AATCCAATCTGTTGCAGTCTCCTCAAGCATTCTGTGACCTGGATGTTGAATTGCCAC
 CTGTTTGTGTGACATAGATATTTAAATTTCTTAGTGCTCAGAAGTTGTGTGATTTTGT
 ATTAATAAAGCATTCTTTAACACGAANNANNCNCCNCCCCCCCCCNCCNNNNNNNCCN
 NNAACCAATAAACAACCACCAACCCACACCCTCCCCACAACCCCTTACCTTCCCTT
 CTCTCTTTTACCTCCCACTCCCTCACCTCCCTCCC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_004219 unedited
 AAGAATGCTTTATTAATACAAATACACACAACTCTGNAAGCCTAANAAATTTAAATATC
 TATGTCACAGCAAACAGGTGGCAATTCAACATCCAGGGTCGACAGAAATGCTTGAAGGAGA
 CTGCAACAGATTGGATCCCATGGTGGAGAGGGCATCTTACAGGTGAAGGGGGCCAG
 CTGAAACAGCTTTTCAAGCTCTCTCCTCGTCAAGGATCATGAGAGGCACTCCACTCAA
 GGGGAGGTGCGCAATCTGGTCTCTTCCAGGCAGGTCAAACCTCTCAAAGTCTAGAGGATT
 GAAGGGAAAGAATTTTTCTATTTCTGGATAGGCATCATCTGAGGCAGGAACAGAGCTTTT
 TGCTTTAACAGTCTTCTCAGTCATCTTTTTGGCAGAAAAGCTTGCTGTTTTTGTGAG
 GGGTCCCTTGGTCTTACAGACTTTTCTGTAGCTCTGTTGACAGTTCCTAAAGCCTTTCT
 AGTAGCTTTAGGTAAGGCTGGTGGGCATCGAACGTTTTGCCAAAACGTGGTGTGAAAC
 TTGAGATCTCCCATCTAAGGCTTTGATTGAAGGTCCAGACCCAGCTTCAGCCCATCCTT
 AGCAACCACACGGGTGCCTGGTCTCCATTTTCTTATCAACATAGATCAGAGTAGCCAT
 TCTGGATTATTGCAGGTCTTAACAGCCCTCGTGCCGAATTCGCGGCCGCCCTATAGTGA
 GTCGTATTACAAAATTTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACC
 GTACACGCCTACCGNCCATTTGCGTCAACGGGNGCGGGNTATTACGACATTTTGGAAAG
 TCCCGTTGATTTTGGTGCCAAACAACCTCATTGACGTCATGGNGTGGAGACTGGAATCC
 CCGGAGTCAAACGCTATCACGCCATGGTGTCTGCCAAACCGCATACATGTANAGCGAGA
 CTATCGTANAGACTGCCAGTAGAAGTCCGAG

Restriction Sites:

NotI-NotI

ACCN:

NM_004219

Insert Size:

760 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_004219.2](#), [NP_004210.1](#)

RefSeq Size: 728 bp

RefSeq ORF: 609 bp

Locus ID: 9232

UniProt ID: [O95997](#)

Cytogenetics: 5q33.3

Domains: Securin

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Cell cycle, Oocyte meiosis

Gene Summary:

The encoded protein is a homolog of yeast securin proteins, which prevent separins from promoting sister chromatid separation. It is an anaphase-promoting complex (APC) substrate that associates with a separin until activation of the APC. The gene product has transforming activity in vitro and tumorigenic activity in vivo, and the gene is highly expressed in various tumors. The gene product contains 2 PXXP motifs, which are required for its transforming and tumorigenic activities, as well as for its stimulation of basic fibroblast growth factor expression. It also contains a destruction box (D box) that is required for its degradation by the APC. The acidic C-terminal region of the encoded protein can act as a transactivation domain. The gene product is mainly a cytosolic protein, although it partially localizes in the nucleus. Three transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Sep 2013]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. All three variants encode the same protein.