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Product datasheet for RC211038

Securin (PTTG1) (NM_004219) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Securin (PTTG1) (NM_004219) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Securin
Synonyms:	EAP1; HPTTG; PTTG; TUTR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211038 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTACTCTGATCTATGTTGATAAGGAAAATGGAGAACCAGGCACCCGTGTGGTTGCTAAGGATGGGC
TGAAGCTGGGGTCTGGACCTTCAATCAAAGCCTTAGATGGGAGATCTCAAGTTTCAACACCACGTTTTGG
CAAAACGTTCGATGCCCCACCAGCCTTACCTAAAGCTACTAGAAAGGCTTTGGGAACTGTCAACAGAGCT
ACAGAAAAGTCTGTAAAGACCAAGGGACCCCTCAAACAAAAACAGCCAAGCTTTTCTGCCAAAAAGATGA
CTGAGAAGACTGTTAAAGCAAAAAGCTCTGTTCCTGCCTCAGATGATGCCTATCCAGAAATAGAAAAATT
CTTTCCCTTCAATCCTCTAGACTTTGAGAGTTTTGACCTGCCTGAAGAGCACCAGATTGCGCACCTCCCC
TTGAGTGGAGTGCCTCTCATGATCCTTGACGAGGAGAGAGAGCTTGAAAAGCTGTTTCAGCTGGGCCCCC
CTTCACCTGTGAAGATGCCCTCTCCACCATGGGAATCCAATCTGTTGCAGTCTCCTTCAAGCATTCTGTC
GACCCTGGATGTTGAATTGCCACCTGTTTGCTGTGACATAGATATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211038 protein sequence
Red=Cloning site Green=Tags(s)

MATLIYVDKENGEPGTRVVAKDGLKLGSGPSIKALDGRSQVSTPRFGKTFDAPPALPKATRKALGTVNRA
TEKSVKTKGPLKQKQPSFSAKKMTEKTVKAKSSVPASDDAYPEIEKFFPFNPLDFESFDLPEEHQIAHLP
LSGVPLMILDEERELEKLFQLGPPSPVKMPSPPWESNLLQSPSSILSTLDVELPPVCCDIDI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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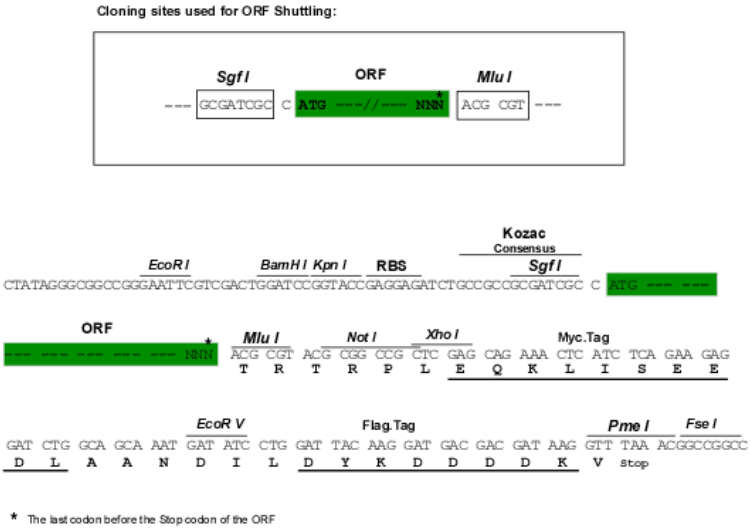
Chromatograms: https://cdn.origene.com/chromatograms/mk6234_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004219

ORF Size: 606 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.

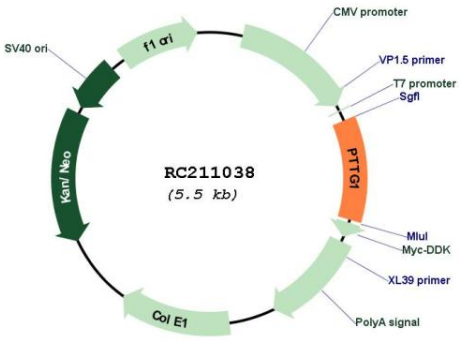
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

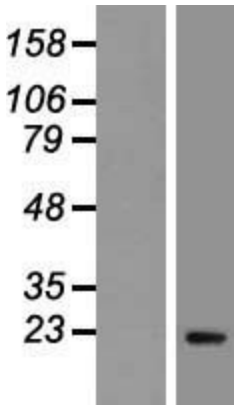
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_004219.4
RefSeq Size:	786 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
MW:	22 kDa
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]

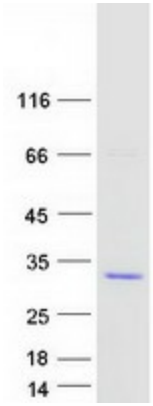
Product images:



Circular map for RC211038



Western blot validation of overexpression lysate (Cat# [LY418146]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211038 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PTTG1 protein (Cat# [TP311038]). The protein was produced from HEK293T cells transfected with PTTG1 cDNA clone (Cat# RC211038) using MegaTran 2.0 (Cat# [TT210002]).