

Product datasheet for **RG203872**

Stefin B (CSTB) (NM_000100) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Stefin B (CSTB) (NM_000100) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Stefin B
Synonyms: CPI-B; CST6; EPM1; EPM1A; PME; STFB; ULD
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG203872 representing NM_000100
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGATGTGCGGGGCGCCCTCCGCCACGCAGCCGGCCACCGCCGAGACCCAGCACATCGCCGACCAGGTGA
 GGTCCCAGCTTGAAGAGAAAGAAAACAAGAAGTTCCTGTGTTTAAGGCCGTGTCATTCAAGAGCCAGGT
 GGTGCGGGGACAACTACTTCATCAAGGTGCACGTGCGGCGACGAGGACTTCGTACACCTGCGAGTGTTCC
 CAATCTCTCCCTCATGAAAACAAGCCCTTGACCTTATCTAACTACCAGACCAACAAGCCAAGCATGATG
 AGCTGACCTATTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

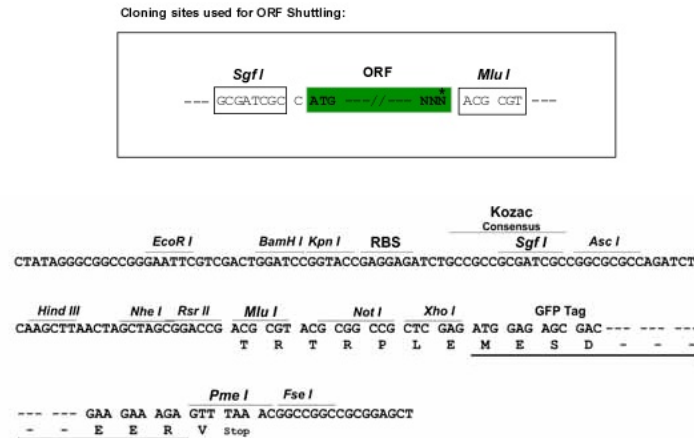
Protein Sequence: >RG203872 representing NM_000100
 Red=Cloning site Green=Tags(s)
 MMCGAPSATQPATAETQHIADQVRSQLEEKENKFPVFKAVSFKSQVVAGTNYFIKVHVHGEDDFVHLRVF
 QSLPHENKPLTLSNYQTNKAKHDELTYP

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_000100

ORF Size: 294 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.

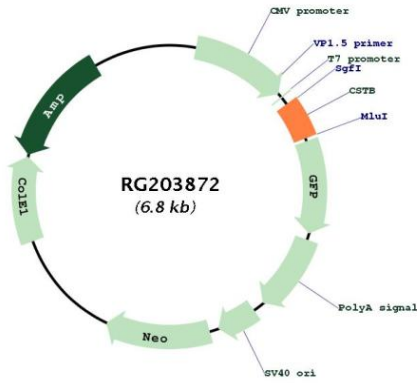
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<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_000100.4
RefSeq Size:	674 bp
RefSeq ORF:	297 bp
Locus ID:	1476
UniProt ID:	P04080
Cytogenetics:	21q22.3
Domains:	CY
Gene Summary:	<p>The cystatin superfamily encompasses proteins that contain multiple cystatin-like sequences. Some of the members are active cysteine protease inhibitors, while others have lost or perhaps never acquired this inhibitory activity. There are three inhibitory families in the superfamily, including the type 1 cystatins (stefins), type 2 cystatins and kininogens. This gene encodes a stefin that functions as an intracellular thiol protease inhibitor. The protein is able to form a dimer stabilized by noncovalent forces, inhibiting papain and cathepsins I, h and b. The protein is thought to play a role in protecting against the proteases leaking from lysosomes. Evidence indicates that mutations in this gene are responsible for the primary defects in patients with progressive myoclonic epilepsy (EPM1). One type of mutation responsible for EPM1 is the expansion in the promoter region of this gene of a CCCC GCCCGCG repeat from 2-3 copies to 30-78 copies. [provided by RefSeq, Jul 2016]</p>

Product images:



Circular map for RG203872