

Product datasheet for SC100002

Stefin B (CSTB) (NM_000100) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Stefin B (CSTB) (NM_000100) Human Untagged Clone
Tag:	Tag Free
Symbol:	Stefin B
Synonyms:	CPI-B; CST6; EPM1; EPM1A; PME; STFB; ULD
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC100002 sequence for NM_000100 edited (data generated by NextGen Sequencing)

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ATGATGTGCGGGGCCCTCCGCCACGCAGCCGGCCACC GCCAGACCCAGCACATCGCC
GACCAGGTGAGGTCCAGCTTGAAGAGAAAGAAAACAAGAAGTTCCTGTGTTTAAGGCC
GTGTCATTCAAGAGCCAGGTGGTCGCGGGGACAACTACTTCATCAAGGTGCACGTCGGC
GACGAGGACTTCGTACACCTGCGAGTGTCCAATCTCTCCCTCATGAAAACAAGCCCTTG
ACCTTATCTAACTACCAGACCAAAAGCCAAGCATGATGAGCTGACCTATTTCTGA
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Clone variation with respect to NM_000100.2

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_000100 unedited
GCACATTTTGAATACGACTCACTATAGGGGCGCCGCGATTCCGGCACGAGGCCTCGTGC
CGAATTCGGCACGAGGGTCGCGCCAAGATGATGTGCGGGGCGCCCTCCGCCACGCAGCC
GGCCACC GCCAGACCCAGCACATCGCCGACCAGGTGAGGTCCAGCTTGAAGAGAAAGA
AAACAAGAAGTTCCTGTGTTTAAGGCCGTGTCATTCAAGAGCCAGGTGGTCGCGGGGAC
AACTACTTCATCAAGGTGCACGTCGGCGACGAGGACTTCGTACACCTGCGAGTGTCCA
ATCTCTCCCTCATGAAAACAAGCCCTTGACCTTATCTAACTACCAGACCAAAAGCCAA
GCATGATGAGCTGACCTATTTCTGATCCTGACTTTGGACAAGGCCCTTCAGCCAGAAGAC
TGACAAAGTCATCCTCCGTCTACCAGAGCGTGACTTGTGATCCTAAAATAAGCTTCATC
TCCGGGTGTGCCCTTGGGGTGAAGGGCAGGATTCTCGAGCTGCTTTTGCAATTTCTC
TTCTAAATTTTCAATTGTGTTGATTTCTTCTCCCAATAGGTGATCTTAATTACTTTCA
GAATATTTTCAAATAGATATATTTTTAAATCCTTANNAAAAAAAAAAAAAAAAAAAAAA
AAAAANNAAAAAAAAAAAAAAACCCTCGACTCTAGATTGCGGCCGCGGTATAGCTGTTTC
CTGAACAGATCCCGGGTGGCATCCCTGTGACCCCTCCCAAGTGCCTCTCCTGGCCCTGNA
AGTTGCCACTCCAGTGCCACCAGCCTTGTCTAATAAAATTAAGTTGCATCATTTTGTG
TGACTAGGTGCTTCTATAATATATGGGGTGGAGGNGGGTTGNAATGGACCAAGGGCCA
GTTTGAAAACACCTGTAGGGCCGCGGGCCTATGGGAACCAGCTGAAT
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000100 unedited GGCCGCAATCTAGAGTCGAGTT TTTTTTAAGGATTTTAAAAATATATTTATTTTAAAAATTCTGAAAGTAATTTAAATC ACCTTTTGGAAGGAAAGAAATCAACCCAATGAAATTTAGGAAAAAAATGCAAAAGCAG CTGCAAAATCCTGCCCTTCCACCCCAAGGGGCACAGCCCGGAAATGAAGCTTATTTAG GATCACAAGTCCCCCTCTGGTAAACGGAGGATGACTTTGTGAGTCTTCTGGCTGAAGGG CCTTGTCAAAGTCAGGATCAAAAATAGGGCAGCTCATCATGCTTGCTTGGCTTGTGGTCTG GTAATTAATAAGGGCAAGGGCTTGTTCATGAGGGAAAAATTGGAACACTCGCAGGTG TACAAAGTCTCGTCGCCGACGTGCACCTTATGAAAGTAGTTTGCCCGCGACACCTG GCTCTGAATGACACGGCCTTAAACACAGGGAAGTTCTTGTTCCTTTCTCTCAAGCTG GGACCTCACCTGGTCGGCGATGTGCTGGGTCTCGGCGGTGGCCGGCTGCGTGCGGAGGG CCCCCGCACATCATCTTGGCGGCGACCCTCGTCCGAATTCGGCACGAGGCCCTCGTGC CGAATTCGCGGCCCTATAGTGAGTCGTATACAAAATTCTGACGGTCTACTAAACGAG CTCTGCTTATATAGACCTCCACCGTACACGCTACCGNCCATTTGCGTACGGGGGCGN GTTATTACGACTTTTAAAAGTCCGTTGATTTTGTCCAAACAACCTCCNATGACGTCATG GGGTGAAACTGAAATCCCGGATCAACCGTATCCGCCATTGTGTCTGCAACGATCACTG TATAGCAGACTATACCAAGTCTGCANTAGAAATCGTAGGCATTCTGGCTATGCAGCGCC TTCC
Restriction Sites:	NotI-NotI
ACCN:	NM_000100
Insert Size:	640 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<u>NM_000100.2</u> , <u>NP_000091.1</u>

RefSeq Size: 674 bp

RefSeq ORF: 297 bp

Locus ID: 1476

UniProt ID: [P04080](#)

Cytogenetics: 21q22.3

Domains: CY

Gene Summary: 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]