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pJN-opCLII	
Cat. No.	P-002
Gene/Insert name:	Codon-optimized Clytin II (opCLII)
Vector backbone:	pUC-JN
Vector type:	*E.coli*
Backbone size w/o insert (bp):	2,680
Bacterial resistance:	Ampicillin
Growth strain:	JM83
Growth temperature (°C):	37
Growth instructions:	pJN-opCLII is resistant to ampicillin (50 µg/mL)
High or low copy:	High copy
Vector map:	pJN-opCLII
Coding sequence:	Nucleotide sequence & Amino acid sequence
Plasmid sequence:	pJN-opCLII (3,274 bp)
Restriction enzyme list:	Restriction enzyme sites of pJN-opCLII
GenBank Accession No.:	HJ241347
Size:	10 µg
Terms and Licenses:	MTA
Laboratory Reagent For Research Use Only	

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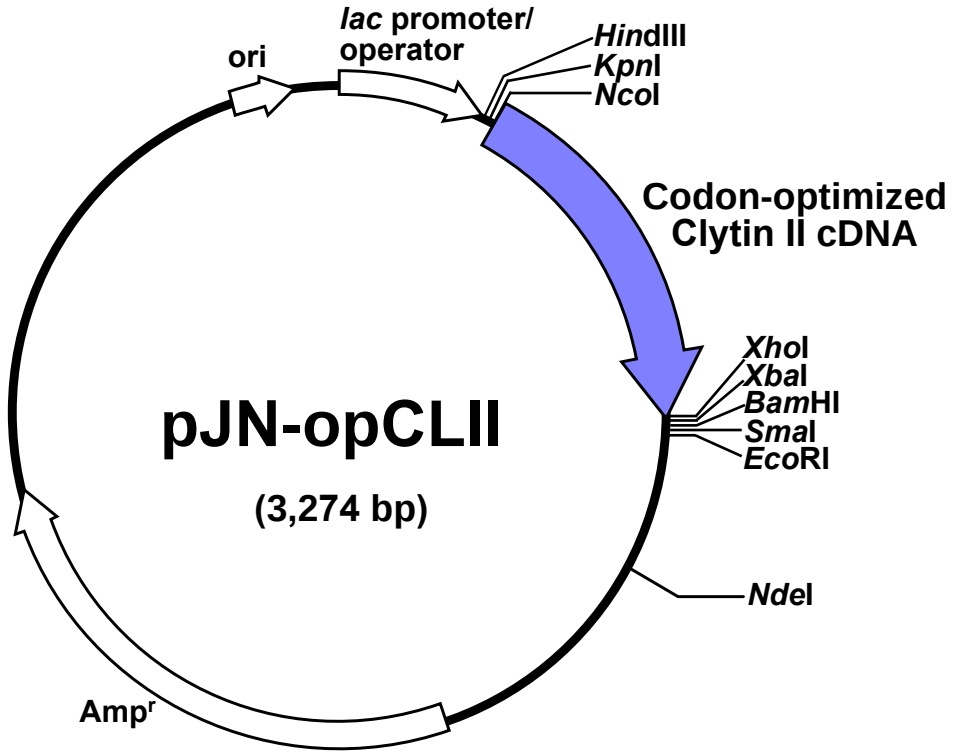
Ca^{2+}-Binding Photoprotein, Clytin II

Cat. No. P-002

Name: pJN-opCLII
Insert: Codon-optimized Clytin II cDNA
Vector: pUC-JN (pUC9 derivative)



- **DNA fragment:**

M V K L - - - F V P ***
aagcttggtaccacc ATG-GTG-AAG-CTG-.....-TTC-GTC-CCC-TAA ctcgag
HindIII **(Kozak)** ***XhoI***

- **Feature for pJN-opCLII:**

Residue	Sourse	Comments
1-245	1-245	pUC-JN backbone (pUC9 derivative)
1-230	1-230	*lac* promoter/operator
255-824	1-570	Codon-optimized Clytin II ORF
840-3,274	294-2,728	pUC-JN backbone (pUC9 derivative)
3,101	2,555	ori: Origin of replication
1,473-2,333	927-1,787	Amp^r: Ampicillin resistance gene

Ref.

1) Clytin II amino acid seq. & cDNA seq.: GenBank Accession No. AB360785
Inouye, S. *J. Biochem.* (2008) 143: 711-717.

2) Codon-optimized Clytin II DNA seq.: GenBank Accession No. HJ241347
Inouye, S. *et al*. *Protein Expr. Purif.* (2015) 109: 47-54

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Gene coding region (ORF: Codon-optimized Clytin II)

Nucleotide sequence

AAGCTTGGTACCACC**ATG**GTGAAGCTGGACCCCGACTTCGCCAACCCCAAGTGGATCAACAGACACAAGT
TCATGTTCAACTTCCTGGACATCAACGGCAACGGCAAGATCACCCTGGACGAGATCGTGAGCAAGGCCAG
CGACGACATCTGCGCCAAGCTGGACGCCACCCCCGAGCAGACCAAGAGACACCAGGACGCCGTGGAGGCC
TTCTTCAAGAAGATGGGCATGGACTACGGCAAGGAGGTGGCCTTCCCCGAGTTCATCAAGGGCTGGGAGG
AGCTGGCCGAGCACGACCTGGAGCTGTGGAGCCAGAACAAGAGCACCCTGATCAGAGAGTGGGGCGACGC
CGTGTTCGACATCTTCGACAAGGACGCCAGCGGCAGCATCAGCCTGGACGAGTGGAAGGCCTACGGCAGA
ATCAGCGGCATCTGCCCCAGCGACGAGGACGCCGAGAAGACCTTCAAGCACTGCGACCTGGACAACAGCG
GCAAGCTGGACGTGGACGAGATGACCAGACAGCACCTGGGCTTCTGGTACACCCTGGACCCCACCAGCGA
CGGCCTGTACGGCAACTTCGTCCCC**TAA**CTCGAG

Amino acid sequence

KLGTT**M**VKLDPDFANPKWINRHKFMFNFLDINGNGKITLDEIVSKASDDICAKLDATPEQTKRHQDAVEA
FFKKMGMDYGKEVAFPEFIKGWEELAEHDLELWSQNKSTLIREWGDAVFDIFDKDASGSISLDEWKAYGR
ISGICPSDEDAEKTFKHCDLDNSGKLDVDEMTRQHLGFWYTLDPTSDGLYGNFVP*****LE

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pJN-opCLII (3,274 bp)

GCGCCCAATACGCAAACCGCCTCTCCCCGCGCGTTGGCCGATTCATTAATGCAGCTGGCACGACAGGTTT
CCCGACTGGAAAGCGGGCAGTGAGCGCAACGCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCCAGG
CTTTACACTTTATGCTTCCGGCTCGTATGTTGTGTGGAATTGTGAGCGGATAACAATTTCACACAGGAAA
CAGCTATGACCATGATTACGCCAAGCTGCAAGCTTGGTACCACCATGGTGAAGCTGGACCCCGACTTCGC
CAACCCCAAGTGGATCAACAGACACAAGTTCATGTTCAACTTCCTGGACATCAACGGCAACGGCAAGATC
ACCCTGGACGAGATCGTGAGCAAGGCCAGCGACGACATCTGCGCCAAGCTGGACGCCACCCCCGAGCAGA
CCAAGAGACACCAGGACGCCGTGGAGGCCTTCTTCAAGAAGATGGGCATGGACTACGGCAAGGAGGTGGC
CTTCCCCGAGTTCATCAAGGGCTGGGAGGAGCTGGCCGAGCACGACCTGGAGCTGTGGAGCCAGAACAAG
AGCACCCTGATCAGAGAGTGGGGCGACGCCGTGTTCGACATCTTCGACAAGGACGCCAGCGGCAGCATCA
GCCTGGACGAGTGGAAGGCCTACGGCAGAATCAGCGGCATCTGCCCCAGCGACGAGGACGCCGAGAAGAC
CTTCAAGCACTGCGACCTGGACAACAGCGGCAAGCTGGACGTGGACGAGATGACCAGACAGCACCTGGGC
TTCTGGTACACCCTGGACCCCACCAGCGACGGCCTGTACGGCAACTTCGTCCCCTAACTCGAGCATGCAT
CTAGAGGATCCCCGGGAATTGCGGAATTCCGCAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGA
AAACCCTGGCGTTACCCAACTTAATCGCCTTGCAGCACATCCCCCTTTCGCCAGCTGGCGTAATAGCGAA
GAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCCTGATGCGGTATT
TTCTCCTTACGCATCTGTGCGGTATTTCACACCGCATATGGTGCACTCTCAGTACAATCTGCTCTGATGC
CGCATAGTTAAGCCAGCCCCGACACCCGCCAACACCCGCTGACGCGCCCTGACGGGCTTGTCTGCTCCCG
GCATCCGCTTACAGACAAGCTGTGACCGTCTCCGGGAGCTGCATGTGTCAGAGGTTTTCACCGTCATCAC
CGAAACGCGCGAGACGAAAGGGCCTCGTGATACGCCTATTTTTATAGGTTAATGTCATGATAATAATGGT
TTCTTAGACGTCAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTTCTAAATA
CATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGA
GTATGAGTATTCAACATTTCCGTGTCGCCCTTATTCCCTTTTTTGCGGCATTTTGCCTTCCTGTTTTTGC
TCACCCAGAAACGCTGGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTTACATCGAA
CTGGATCTCAACAGCGGTAAGATCCTTGAGAGTTTTCGCCCCGAAGAACGTTTTCCAATGATGAGCACTT
TTAAAGTTCTGCTATGTGGCGCGGTATTATCCCGTATTGACGCCGGGCAAGAGCAACTCGGTCGCCGCAT
ACACTATTCTCAGAATGACTTGGTTGAGTACTCACCAGTCACAGAAAAGCATCTTACGGATGGCATGACA
GTAAGAGAATTATGCAGTGCTGCCATAACCATGAGTGATAACACTGCGGCCAACTTACTTCTGACAACGA
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GGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTGACACCACGATGCCTGTAGCAATGGCAACA
ACGTTGCGCAAACTATTAACTGGCGAACTACTTACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGG
AGGCGGATAAAGTTGCAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATC
TGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATC
GTAGTTATCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCTGAGATAGGTG
CCTCACTGATTAAGCATTGGTAACTGTCAGACCAAGTTTACTCATATATACTTTAGATTGATTTAAAACT
TCATTTTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAACGT
GAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTC
TGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGA
GCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTG
TAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGT
TACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGA
TAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACC
GAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGT
ATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCT
TTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGG
AGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGCCTTTTGCTGGCCTTTTGCTCACA
TGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCTTTGAGTGAGCTGATACCGC
TCGCCGCAGCCGAACGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGCGGAAGA

Residue	Sourse	Comments
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1,473-2,333	927-1,787	Amp^r: Ampicillin resistance gene

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Restriction enzyme sites of pJN-opCLII

Indication Mode: 5' Terminal of the Site

Enzyme Name	Sequence	Count	Start Position
AccI	GT!MKAC	0	
ApaI	GGGCC!C	0	
Asp718	G!GTACC	1	246
BamHI	G!GATCC	1	846
BclI	T!GATCA	1	568
BglII	A!GATCT	0	
EcoRI	G!AATTC	1	864
EcoRV	GAT!ATC	0	
HindIII	A!AGCTT	1	240
KpnI	GGTAC!C	1	246
MluI	A!CGCGT	0	
NcoI	C!CATGG	1	253
NdeI	CA!TATG	1	1085
NheI	G!CTAGC	0	
NotI	GC!GGCCGC	0	
PstI	CTGCA!G	0	
SacI	GAGCT!C	0	
SalI	G!TCGAC	0	
ScaI	AGT!ACT	1	1777
SmaI	CCC!GGG	1	851
XbaI	T!CTAGA	1	840
XhoI	C!TCGAG	1	828

Supplier	Contact us
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