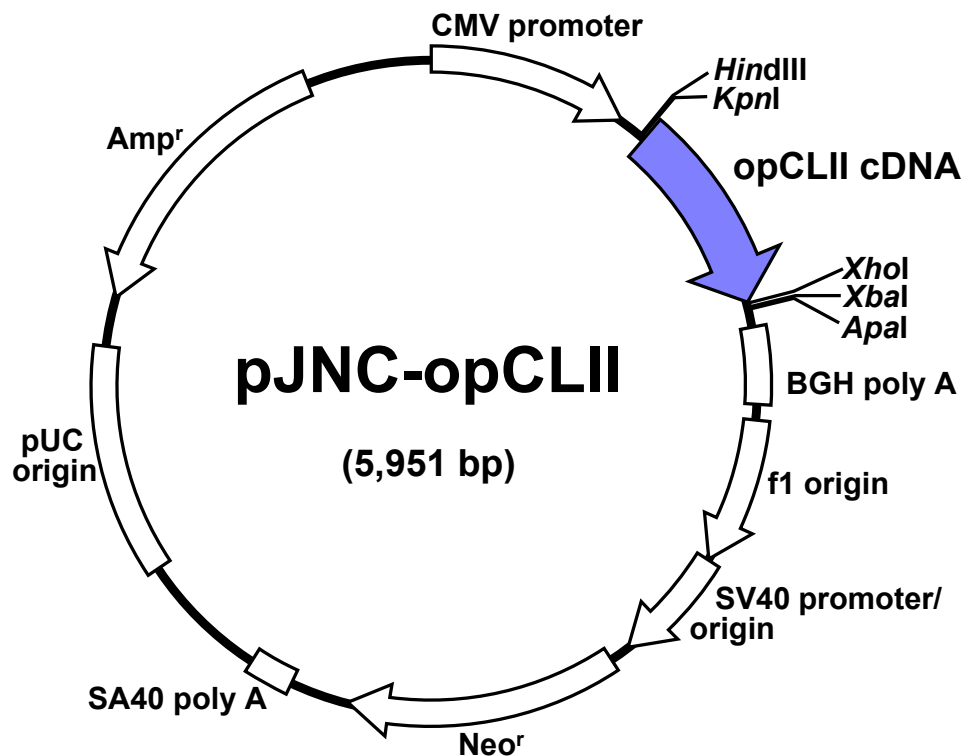


pJNC-opCLII	
Cat. No.	P-105
Gene/Insert name:	Codon-optimized Clytin II (opCLII)
Vector backbone:	pCMV-JNC
Vector type:	Mammalian cells
Backbone size w/o insert (bp):	5,375
Bacterial resistance:	Ampicillin and neomycin
Growth strain:	JM83
Growth temperature (°C):	37
Growth instructions:	pJNC-opCLII is resistant to ampicillin and neomycin
High or low copy:	High copy
Vector map:	pJNC-opCLII
Coding sequence:	Nucleotide sequence & Amino acid sequence
Restriction enzyme list:	Restriction enzyme sites of pJNC-opCLII
GenBank Accession No.:	HJ241347
Size:	10 µg
Terms and Licenses:	MTA
Laboratory Reagent For Research Use Only	

Mammalian expression vector: Ca²⁺-Binding Photoprotein, Clytin II

Cat. No. P-105

Name: pJNC-opCLII
Insert: Codon-optimized Clytin II cDNA
Vector: pCMV-JNC



• Feature for pJNC-opCLII:

Residue	Source	Comments
1-669	1-669	pCMV-JNC backbone
1-588	1-588	CMV promoter
632-651	632-651	T7 promoter
673-1,242	1-570	Codon-optimized Clytin II ORF
1,246-5,951	740-5,445	pCMV-JNC backbone
1,274-1,291	768-785	Sp6 promoter
1,317-1,541	811-1,035	BGH polyadenylation sequence
1,587-2,015	1,081-1,509	f1 origin
2,020-2,363	1,514-1,857	SV40 early promoter and origin
2,425-3,219	1,919-2,713	Neomycin resistance gene (ORF)
3,393-3,523	2,887-3,017	SV40 early polyadenylation signal
3,906-4,579	3,400-4,073	pUC origin
4,724-5,584	4,218-5,078	Ampicillin resistance gene (ORF)

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

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

Nucleotide sequence

AAGCTTGGTACCACC**ATGGTGAAGCTGGACCCCGACTTCGCCAACCCCAAGTGGATCAACAGACACAAGT**
TCATGTTCAACTTCCTGGACATCAACGGCAACGGCAAGATCACCCCTGGACGAGATCGTGAGCAAGGCCAG
CGACGACATCTGCGCCAAGCTGGACGCCACCCCGAGCAGACCAAGAGACACCAGGACGCCGTGGAGGCC
TTCTTCAAGAAGATGGGCATGGACTACGGCAAGGAGGTGGCCTTCCCCGAGTTCATCAAGGGCTGGGAGG
AGCTGGCCGAGCACGACCTGGAGCTGTGGAGCCAGAACAAAGAGCACCCCTGATCAGAGAGTGGGGCGACGC
CGTGTTGACATCTTCGACAAGGACGCCAGCGGCAGCATCAGCCTGGACGAGTGGGAAGGCCACGGCAGA
ATCAGCGGCATCTGCCCCAGCGACGAGGACGCCGAGAAGACCTTCAAGCACTGCGACCTGGACAACAGCG
GCAAGCTGGACGTGGACGAGATGACCAGACAGCACCTGGGCTTCTGGTACACCCCTGGACCCACCAGCGA
CGGCCTGTACGGCAACTTCGTCCCTAACTCGAG

Amino acid sequence

MVKLDPDFANPKWINRHKFMFNFLDINGNGKITLDEIVSKASDDICAKLDATPEQTKRHQDAVEAFFKMM
GMDYGKEVAFPEFIKGWEELEHDLWSQNKSTLIREWGDVFDIFDKDASGSI SLDEWKAYGRISGIC
PSDEDAEKTFKHCDL DNSGKLDVDEMTRQHLGFWYTLDP TSDGLYGNFVP*

Restriction enzyme sites of pJNC-opCLII

Enzyme Name	Sequence	Count	Cutting Positions
AccI	GT!MKAC	3	3525, 3532, 5720
ApaI	GGGCC!C	1	1269
Asp718I	G!GTACC	1	665
BamHI	G!GATCC	0	-
BclI	T!GATCA	3	987, 1305, 2395
BglII	A!GATCT	1	5733
EcoRI	G!AATTC	0	-
EcoRV	GAT!ATC	0	-
HincII	GTY!RAC	3	4, 3533, 5721
HindIII	A!AGCTT	1	659
KpnI	GGTAC!C	1	669
MluI	A!CGCGT	0	-
NcoI	C!CATGG	4	380, 672, 2251, 2986
NdeI	CA!TATG	1	254
NheI	G!CTAGC	0	-
NotI	GC!GGCCGC	0	-
PstI	CTGCA!G	1	2607
SacI	GAGCT!C	2	588, 1301
SalI	G!TCGAC	2	3531, 5719
ScaI	AGT!ACT	1	5278
SmaI	CCC!GGG	1	2367
StuI	AGG!CCT	3	866, 1067, 2343
XbaI	T!CTAGA	1	1259
XhoI	C!TCGAG	1	1247

Supplier	Contact us
JNC CORPORATION Shin Otemachi Bldg. 9F 2-2-1 Otemachi, Chiyoda-ku, Tokyo 100-8105 URL http://www.jnc-corp.co.jp	JNC Corporation, Yokohama Research Center 5-1 Okawa, Kanazawa-ku, Yokohama, Japan 236-8605 Tel: 045-786-5501 Fax: 045-786-5511 E-mail: biophoton@jnc-corp.co.jp