



基本信息

启动子:	CMV
平台编号:	bio-84561
复制子:	SV40 ori, pUC ori, fl
终止子:	BGH poly(A) signal
质粒分类:	哺乳细胞载体;蛋白过表达质粒
质粒大小:	5428bp
原核抗性:	氨苄青霉素 Amp
筛选标记:	新霉素 Neo
克隆菌株:	DH5 α
培养条件:	37°C, 有氧, LB
表达宿主:	哺乳细胞
诱导方式:	IPTG 或乳糖及其类似物
5' 测序引物:	CMV-F: 5-CGCAAATGGGCGGTAGGCGTG-3
3' 测序引物:	BGH-R: TAGAAGGCACAGTCGAGG

质粒简介

pcDNA3.1(+) and pcDNA3.1(-) are 5.4 kb vectors derived from pcDNA3 and designed for high-level stable and transient expression in mammalian hosts. High-level stable and non-replicative transient expression can be carried out in most mammalian cells. The vectors contain the following elements:

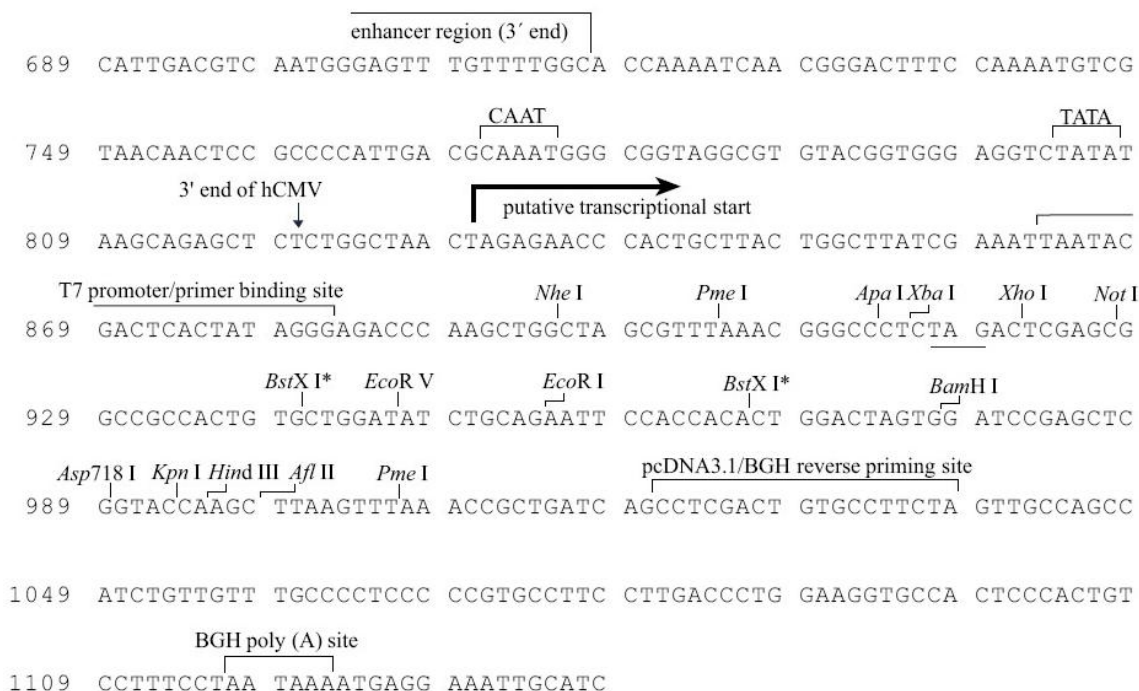
- Human cytomegalovirus immediate-early (CMV) promoter for high-level expression in a wide range of mammalian cells
- Multiple cloning sites in the forward (+) and reverse (-) orientations to facilitate cloning
- Neomycin resistance gene for selection of stable cell lines
- Episomal replication in cells lines that are latently infected with SV40 or that express the SV40 large T antigen (e.g. COS-1, COS-7). The control plasmid, pcDNA3.1/CAT, is included for use as a positive control for transfection and expression in the cell line of choice.

This pcDNATM3.1(+)vector is designed for high-level, constitutive expression in a variety of

mammalian cell lines. It contains a Geneticin® selectable marker and a forward-orientation multiple cloning site.

Multiple Cloning Site of pcDNA3.1(-)

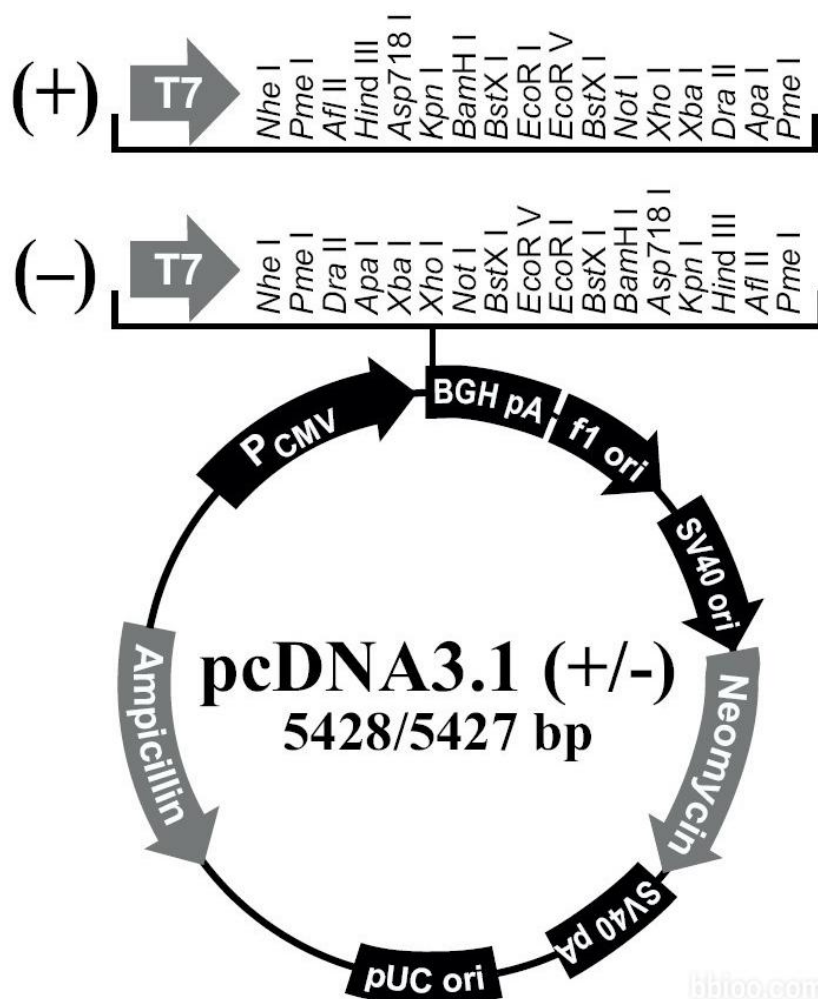
Below is the multiple cloning site for pcDNA3.1(-). Restriction sites are labeled to indicate the cleavage site. The *Xba* I site contains an internal stop codon (TCTAGA). The multiple cloning site has been confirmed by sequencing and functional testing. **The complete sequence of pcDNA3.1(-) is available for downloading from our web site (www.invitrogen.com) or from Technical Service (see page 13).** For a map and a description of the features of pcDNA3.1(-), please see the **Appendix**, pages 10-11.



*Please note that there are two *Bst*X I sites in the polylinker.

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质粒图谱



质粒序列

LOCUS	Exported	5428 bp ds-DNA	circular SYN 18-九月-2016
DEFINITION	synthetic circular DNA		
ACCESSION	.		
VERSION	.		
KEYWORDS	pCDNA3.1(+)		
SOURCE	synthetic DNA construct		
ORGANISM	synthetic DNA construct		
REFERENCE	1 (bases 1 to 5428)		
AUTHORS	.		
TITLE	Direct Submission		
JOURNAL	Exported 2016年9月18日 from SnapGene Viewer		
2.8.1FEATURES	Location/Qualifiers		
source	1..5428		
	/organism="synthetic DNA construct"		
	/mol_type="other DNA"		



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enhancer	202..581
	/note="CMV enhancer"
	/note="human cytomegalovirus immediate early enhancer"
promoter	582..785
	/note="CMV promoter"
	/note="human cytomegalovirus (CMV) immediate early promoter"
promoter	830..848
	/note="T7 promoter"
	/note="promoter for bacteriophage T7 RNA polymerase"
polyA_signal	995..1219
	/note="bGH poly(A) signal"
	/note="bovine growth hormone polyadenylation signal"
rep_origin	1265..1693
	/direction=RIGHT
	/note="f1 ori"
	/note="f1 bacteriophage origin of replication; arrow indicates direction of (+) strand synthesis"
promoter	1707..2036
	/note="SV40 promoter"
	/note="SV40 enhancer and early promoter"
rep_origin	1887..2022
	/note="SV40 ori"
	/note="SV40 origin of replication"
CDS	2103..2897
	/codon_start=1
	/gene="aph(3')-II (or nptII) "
	/product="aminoglycoside phosphotransferase from Tn5"
	/note="NeoR/KanR"
	/note="confers resistance to neomycin, kanamycin, and G418 (Geneticin(R)) "
	/translation="MIEQDGLHAGSPAAWVERLFGYDWAQQTIGCSDAAVFRLSAQ
GRP	
	VLfVKTdLSGALNELQDEAARLSWLATTGVPCAavLDVVTEAGRDWLLLGEVPGQD
LLS	
	SHLAPAEKVSIMADAMRRLHTLDPATCFPDHQAKHRIERARTRMEAGLVDQDDLDE
EHQ	
	GLAPAELFARLKARMPDGEDLVVTHGDACLPNIMVENGRFSGFIDCGRLGVADRYQ
DIA	
	LATRDIAEELGGEWADRFLVLYGIAAPDSQRIAFYRLLEFF"
polyA_signal	3071..3192
	/note="SV40 poly(A) signal"



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	/note="SV40 polyadenylation signal"
primer_bind	complement(3241..3257) /note="M13 rev" /note="common sequencing primer, one of multiple similar variants"
protein_bind	3265..3281 /bound_moiety="lac repressor encoded by lacI" /note="lac operator" /note="The lac repressor binds to the lac operator to inhibit transcription in E. coli. This inhibition can be relieved by adding lactose or isopropyl-beta-D-thiogalactopyranoside (IPTG)."
promoter	complement(3289..3319) /note="lac promoter" /note="promoter for the E. coli lac operon"
protein_bind	3334..3355 /bound_moiety="E. coli catabolite activator protein" /note="CAP binding site" /note="CAP binding activates transcription in the presence of cAMP."
rep_origin	complement(3643..4228) /direction=LEFT /note="ori" /note="high-copy-number ColE1/pMB1/pBR322/pUC origin of replication"
CDS	complement(4399..5259) /codon_start=1 /gene="bla" /product="beta-lactamase" /note="AmpR" /note="confers resistance to ampicillin, carbenicillin, and related antibiotics" /translation="MSIQHFRVALIPFFAAFCCLPVFAHPETLVKVKDAEDQLGARV
GYI	ELDLNSGKILESFRPEERFPMSTFKVLLCGAVLSRIDAGQEQLGRRIHYSQNDLV
EYS	PVTEKHLTDGMTVRELCSAAITMSDNTAANLLLTIGGPKELTAFLHNMGDHVTRL
DRW	EPELNEAIPNDERDTTMPVAMATTLRKLLTGELLTLASRQQQLIDWMEADKVAGPLL
RSA	LPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTGSQATMDERNRQIAEI
GAS	



promoter LIKHW"
complement (5260..5364)
/gene="bla"
/note="AmpR promoter"

ORIGIN

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