



	BamHI		MluI		NheI		NotI		HindIII		SalI		EcoRV
601	GGGATCCTCT	AGTCAGCTGA	CGCGTGCTAG	CGCGGCCGCA	TCGATAAGCT	TGTCGACGAT	CCCTAGGAGA	TCAGTCGACT	GCGCAGGATC	GCGCCGGCGT	AGCTATTCGA	ACAGCTGCTA	
	EcoRV												
661	ATCTCCAGAG												
	TAGAGGTCTC												

pBI-CMV2 Vector Map and Multiple Cloning Site.



Clontech

United States/Canada
800.662.2566

Asia Pacific
+1.650.919.7300

Europe
+33.(0)1.3904.6880

Japan
+81.(0)77.543.6116

Clontech Laboratories, Inc.
A Takara Bio Company
1290 Terra Bella Ave.
Mountain View, CA 94043
Technical Support (US)
E-mail: tech@clontech.com
www.clontech.com

Description

pBI-CMV2 is a mammalian bidirectional expression vector designed to constitutively express a protein of interest and AcGFP1, a green fluorescent protein derived from *Aequorea coerulea*. The vector allows straightforward detection of transfected mammalian cells by flow cytometry or fluorescence microscopy, as cells expressing the protein of interest can be quickly identified by screening for AcGFP1 fluorescence.

Protein expression is driven by one of two constitutively active, minimal human cytomegalovirus promoters: $P_{minCMV1}$ (located upstream of the multiple cloning site [MCS]), drives the expression of the protein of interest, and $P_{minCMV2}$ drives the expression of AcGFP1. To allow propagation and selection in *E. coli*, the vector contains a CoIE1 origin of replication and an ampicillin resistance gene (Amp^r).

(PR093640; published 3 September 2010)

Use

pBI-CMV2 is designed to constitutively express a protein of interest and the green fluorescent protein AcGFP1. The gene of interest must contain an initiation codon and a stop codon.

pBI-CMV2 can be transfected into mammalian cells using any standard transfection method. Cells expressing AcGFP1 (excitation and emission maxima: 475 and 505, respectively) can be detected by flow cytometry or fluorescence microscopy 8–12 hr after transfection. AcGFP1 can be detected with standard FITC filter sets.

Location of features

- Enhancer: 64–473
- P_{minCMV1} (minimal human cytomegalovirus promoter 1): 474–599
- MCS (multiple cloning site): 602–663
- SV40 polyA signals: 675–862
- ColE1 origin of replication: 1038–1637
- Amp^r (ampicillin resistance gene): 1799–2659 (complementary)
- SV40 polyA signals: 2795–2982 (complementary)
- AcGFP1 (human codon optimized): 3017–3736
- P_{minCMV2} (minimal human cytomegalovirus promoter 2): 3754–3822

Propagation in *E. coli*

- Recommended host strain: DH5 α TM and other general purpose strains.
- Selectable marker: plasmid confers resistance to ampicillin (100 $\mu\text{g/ml}$) in *E. coli* hosts.
- *E. coli* replication origin: ColE1
- Plasmid incompatibility group: pMB1/ColE1

Note: The vector sequence was compiled from information in the sequence databases, published literature, and other sources, together with partial sequences obtained by Clontech. This vector has not been completely sequenced.

Notice to Purchaser

Clontech products are to be used for research purposes only. They may not be used for any other purpose, including, but not limited to, use in drugs, *in vitro* diagnostic purposes, therapeutics, or in humans. Clontech products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without written approval of Clontech Laboratories, Inc.

DH5 α TM is a trademark of Invitrogen Corporation.

AcGFP is covered by U.S. Patent No. 7,432,053.

Living Colors Fluorescent Protein Products:

Not-For-Profit Entities: Orders may be placed in the normal manner by contacting your local representative or Clontech Customer Service at 650.919.7300. At its discretion, Clontech grants Not-For-Profit Entities a non-exclusive, personal, limited license to use this product for non-commercial life science research use only. Such license specifically excludes the right to sell or otherwise transfer this product, its components or derivatives thereof to third parties. No modifications to the protein coding sequence may be made without express written permission from Clontech. Any other use of this product requires a license from Clontech. For license information, please contact a licensing representative by phone at 650.919.7320 or by e-mail at licensing@clontech.com.

For-Profit Entities wishing to use this product are required to obtain a license from Clontech. For license information, please contact a licensing representative by phone at 650.919.7320 or by e-mail at licensing@clontech.com.

Clontech, the Clontech logo and all other trademarks are the property of Clontech Laboratories, Inc., unless noted otherwise. Clontech is a Takara Bio Company. ©2010 Clontech Laboratories, Inc.