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**PRODUCT: AcGFP1 Vector Set****CATALOG NO.**  
632426**LOT NUMBER**  
Specified on product label.**STORAGE BUFFER**  
10 mM Tris-HCl (pH 8.0)  
1 mM EDTA (pH 8.0)**STORAGE CONDITIONS**

- Store plasmid at  $-20^{\circ}\text{C}$ .
- Spin briefly to recover contents.
- Avoid repeated freeze/thaw cycles.

**SHELF LIFE**  
1 year from date of receipt under proper storage conditions.**SHIPPING CONDITIONS**

- Part 1: Blue ice ( $4^{\circ}\text{C}$ )  
or dry ice ( $-70^{\circ}\text{C}$ )
- Part 2: Room temperature

**DESCRIPTION**

A set of three vectors encoding green fluorescent protein from *Aequorea coerulea*. pAcGFP1 is a prokaryotic expression vector that also serves as a convenient source of fluorescent protein cDNA. In this vector, the full-length human-odon-optimized cDNA is flanked by distinct MCSs to facilitate excision from the vector and insertion into other eukaryotic or prokaryotic expression constructs. The other vectors, pAcGFP1-C1 and pAcGFP1-N1, are designed for studies in mammalian systems. These vectors allow expression of a protein of interest as a C- or N-terminal fusion, respectively. The fusion vectors can also be used as cotransfection markers since the unmodified vectors will express fluorescent protein. All of the fluorescent protein coding sequences in these constructs have been human codon-optimized for efficient expression in mammalian cells.

**CONCENTRATION:** 500 ng/ $\mu\text{l}$  each**PACKAGE CONTENTS**

- 20  $\mu\text{g}$  pAcGFP1 Vector
- 20  $\mu\text{g}$  pAcGFP1-C1 Vector
- 20  $\mu\text{g}$  pAcGFP1-N1 Vector

**OTHER**

- pAcGFP1 Vector Information (PT3715-5)
- pAcGFP1-C1 Vector Information (PT3717-5)
- pAcGFP1-N1 Vector Information (PT3716-5)

**FOR RESEARCH USE ONLY****QUALITY CONTROL DATA**

Please see back of page.

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APPROVED BY: \_\_\_\_\_

(PA7Y2544)

## CLONING SITES

- **pAcGFP1 Vector**  
*Age I, Acc I, Apa I, Asp718 I, BamH I, BsiW I, EcoR I, Hinc II, Hind III, Kpn I, Not I, Pst I, Sal I, Sma I, Spe I, Sph I, Stu I, Xma I*
- **pAcGFP1-C1 Vector**  
*Acc I, Apa I, Asp718 I, BamH I, Bcl I, Bgl II, BspE I, EcoR I, Hind III, Kpn I, Pst I, Sac I, Sac II, Sal I, Sma I, Xba I, Xho I, Xma I*
- **pAcGFP1-N1 Vector**  
*Age I, Acc I, Apa I, Asp718 I, BamH I, Bgl II, Eco47 III, EcoR I, Hind III, Kpn I, Nhe I, Pst I, Sac I, Sac II, Sal I, Sma I, Xho I, Xma I*

## VECTOR CHARACTERISTICS AND QUALITY CONTROL DATA

- The identity of each plasmid was verified by digestion with the indicated restriction enzymes (Table I). Fragments were observed on a 0.8% agarose/EtBr gel.
- The presence of the correct fluorescent protein variant was confirmed by sequencing.
- The purity of each plasmid was determined by the  $A_{260}/A_{280}$ . In all cases  $A_{260}/A_{280}$  was in a range of 1.8 - 2.0.

TABLE I. *AEQUOREA COERULESCENS* FLUORESCENT PROTEIN EXPRESSION VECTORS

Vector	Plasmid Size	Selectable Marker		Quality Control Data	
		<i>E. coli</i>	Mammalian	Enzyme(s)	Fragment(s)
pAcGFP1	3.4 kb	Amp	n/a	<i>Pvu II</i> <i>Age I</i>	0.8 & 2.6 kb 3.4 kb
pAcGFP1-C1	4.7 kb	Kan	Neo	<i>Pvu II</i> <i>Age I</i>	0.6, 1.1, & 3.0 kb 4.7 kb
pAcGFP1-N1	4.7 kb	Kan	Neo	<i>Pvu II</i> <i>Age I</i>	0.6, 1.0, & 3.1 kb 4.7 kb

Amp = confers resistance to ampicillin (50 µg/ml)

Kan = confers resistance to kanamycin (50 µg/ml)

Neo = confers resistance to neomycin; Stable transfectants can be selected with G418 (0.5 -1.3 mg/ml, depending on the cell line).

n/a = not applicable (prokaryotic expression vector)

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