pVectOZ-GFP
(Green Fluorescent Protein Expression Vector)

Description

The pVectOZ-GFP vector has been created to produce the highest levels of Green Fluorescent Protein expression in a broad range of mammalian cells and tissues. It contains a proprietary modified human cytomegalovirus (CMV) promoter followed by a specific intron, enhancer and a terminator. The expression vector is engineered in an optimized plasmid backbone to achieve the highest levels of transgene expression in mammalian cells and high copy number production in *Escherichia coli*.

Kit contents

Ref. #PL00020
25 µg pVectOZ-GFP (encoding for Green Fluorescent Protein) plasmid in 25 µl sterile TE buffer.

Storage

Store at -20°C.

Selection Marker

Kanamycin is the selection gene included for producing the plasmid in *Escherichia coli*.

Applications

pVectOZ-GFP (Green Fluorescent Protein) vector is suitable for all transfection applications (*in vitro* & *in vivo*).

Presentation. The transgene expression level depends mainly on the promoter, enhancer, terminator and plasmid backbone. The pVectOZ-GFP expression cassette was designed to express very high levels of transgene product in many mammalian cells and tissues. This vector has been modified to eliminate sequences affecting transgene expression levels while optimizing those critical for high levels of expression. The final expression cassette accommodates the high levels of transgene expression in mammalian cells as well as high yield of plasmid production in *Escherichia coli*. The resulting plasmid is the ideal vector to reach high levels of expression *in vitro* and *in vivo*.

Use. For high levels of transgene expression in mammalian cells and tissues. For optimal results, this vector can be used with all OZ Biosciences transfection reagents to transfect a wide variety of mammalian cells and tissues.

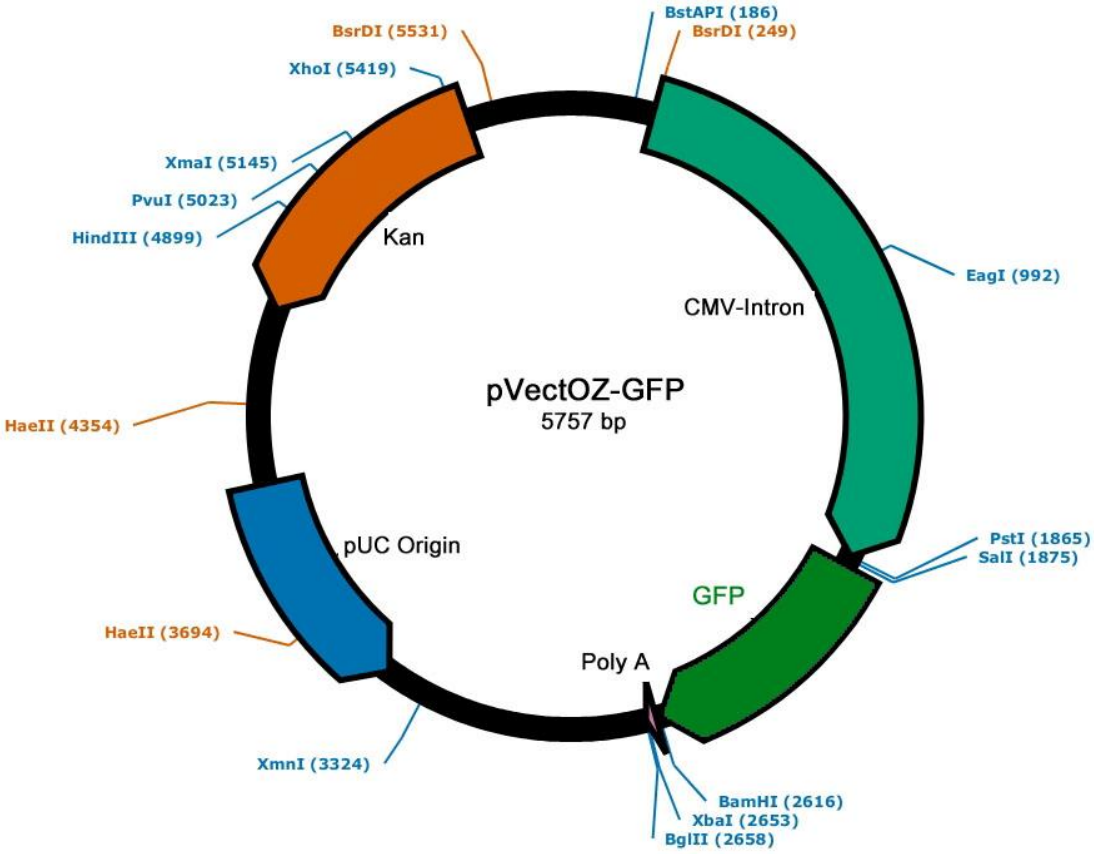
GFP detection

For transfections performed with pVectOZ-GFP plasmids, the detection can be done by fluorescent (epifluorescence) or confocal microscopy. The GFP produced has an excitation peak at 470-480 nm and emission peak at 510 nm. GFP expression level can also be monitored by fluorescence-activated cell sorter analysis (FACS).

References

1. Kain, SR. *et al.* (1995). *Biotechniques.* **19**: 650.
2. Cheng, L. *et al*. (1996). *Nature Biotech.* **14:** 606.
3. Welsh, S. *et al*. (1997). *Curr Opin Biotechnol.* **8**: 617.
4. Zelphati, O. *et al*. (1999). *Hum Gene Ther.* **10**: 15.
5. Ward, T. *et al*. (2006). *Meth Biochem Anal.* **47**: 305.

Plasmid Map



Related Products

Description	Reference
Magnetofection Technology	
Mega Magnetic Plate	MF14000
Super Magnetic Plate	MF10000
Magnetic Plate 96-magnets	MF10096
PolyMag 1mL *(for all nucleic acids)*	PN31000
PolyMag Neo 1mL (for all nucleic acids)	PG61000
CombiMag 1mL *(boost transfection reagent)*	CM21000
SilenceMag 500µL *(for siRNA applications)*	SM10500
NeuroMag 1mL *(for neuron transfection)*	NM51000
Lipofection (lipid-based reagents)	
DreamFect Gold Transfection reagent 1mL	DG81000
DreamFect Transfection reagent 1mL	DF41000
Lullaby siRNA Transfection reagent 1mL	LL71000
VeroFect Transfection Reagent 1mL	VF61000
FlyFectin Transfection Reagent 1mL	FF51000

Description	Reference
Gene & Protein Tools	
Bradford – Protein Assay Kit	BA00100
GeneBlaster selection kit	GB20010
β-Galactosidase (ONPG) assay kit	GO10001
β-Galactosidase (CPRG) assay kit	GC10002
X-Gal Staining Kit	GX10003
Plasmids	
pVectOZ-CAT 25µg	PL00010
pVectOZ-LacZ 25µg	PL00030
pVectOZ-Luc 25µg	PL00040
pVectOZ-SEAP 25µg	PL00050
pVectOZ-CAT 100µg	PL00110
pVectOZ-GFP 100µg	PL00120
pVectOZ-LacZ 100µg	PL00130
pVectOZ-Luc 100µg	PL00140
pVectOZ-SEAP100µg	PL00150