

pVectOZ-CAT (Chloramphenicol Acetyltransferase Expression Vector)

Description

The pVectOZ-CAT vector has been created to produce the highest levels of Chloramphenicol Acetyltransferase 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. #PL00010
25 µg pVectOZ-CAT (encoding for Chloramphenicol Acetyltransferase) 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

pCMV-CAT (Chloramphenicol Acetyltransferase) 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-CAT 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 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.

CAT detection

For transfections performed with pVectOZ-CAT plasmids, the detection can be realized by using standard Chloramphenicol Acetyltransferase assay kits. Chloramphenicol acetyltransferase (CAT), encoded by a bacterial drug-resistance gene, is not found in eukaryotes, and therefore eukaryotic cells contain no background of CAT activity. The CAT kit generally offers several methods for monitoring CAT enzyme activity in transfected cells: liquid scintillation counting, thin layer chromatography, fluorimetric or immuno-assay.

References

1. Gorman, C.M. *et al.* (1982). *Mol. Cell. Biol.* **2**: 1044.
2. Seed, B. *et al.* (1988). *Gene*. **67**: 271.
3. Shaw, W. *et al.* (1991). *Ann Rev Bioph Chem.* **20**: 363.
4. Nickel, R. *et al.* (1994). *PNAS*. **91**: 7095.
5. Davey, M. *et al.* (1995). *Methods Mol Biol.* **49**: 143.

Contact Us

Please, feel free to contact us for all complementary information and remember to visit our website (www.ozbiosciences.com) to stay informed on the latest breakthrough technologies and updated on our complete product list.

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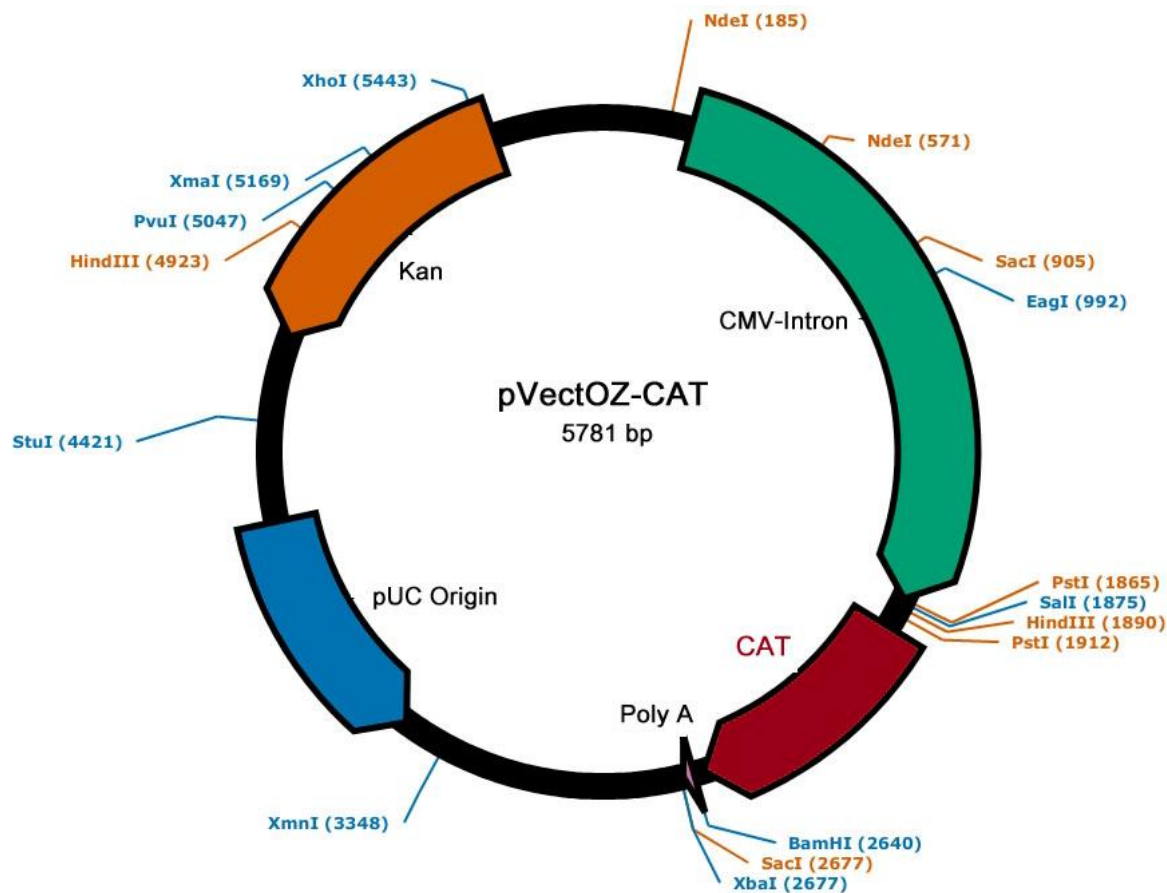
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Plasmid Map



Related Products

Description	Reference	Description	Reference
Magnetofection Technology		Gene & Protein Tools	
Mega Magnetic Plate	MF14000	Bradford – Protein Assay Kit	BA00100
Super Magnetic Plate	MF10000	GeneBlaster selection kit	GB20010
Magnetic Plate 96-magnets	MF10096	β-Galactosidase (ONPG) assay kit	GO10001
PolyMag 1mL (for all nucleic acids)	PN31000	β-Galactosidase (CPRG) assay kit	GC10002
PolyMag Neo 1mL (for all nucleic acids)	PG61000	X-Gal Staining Kit	GX10003
CombiMag 1mL (boost transfection reagent)	CM21000	Plasmids	
SilenceMag 500μL (for siRNA applications)	SM10500	pVectOZ-GFP 25μg	PL00020
NeuroMag 1mL (for neuron transfection)	NM51000	pVectOZ-LacZ 25μg	PL00030
		pVectOZ-Luc 25μg	PL00040
		pVectOZ-SEAP 25μg	PL00050
Lipofection (lipid-based reagents)		pVectOZ-CAT 100μg	PL00110
DreamFect Gold Transfection reagent 1mL	DG81000	pVectOZ-GFP 100μg	PL00120
DreamFect Transfection reagent 1mL	DF41000	pVectOZ-LacZ 100μg	PL00130
Lullaby siRNA Transfection reagent 1mL	LL71000	pVectOZ-Luc 100μg	PL00140
VeroFect Transfection Reagent 1mL	VF61000	pVectOZ-SEAP 100μg	PL00150
FlyFectin Transfection Reagent 1mL	FF51000		