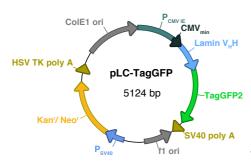
# Lamin Chromobody®-TagGFP plasmid

The vector sequence has been compiled using the information from sequ databases, published literature, and other sources, together with partial sobtained by ChromoTek. This vector has not been completely sequences



For vector sequence, please visit our website at http://www.chromotek.com/pLC-TagGFP.html

#### Location of features

PCMV IE: 1-589

Enhancer region: 59-465 TATA box: 554-560

Transcription start point: 583 Lamin-VHH: 621-1004 TagGFP2: 1077-1790 Stop codon: 1788-1790

SV40 early mRNA polyadenylation signal Polyadenylation signals: 1919-1924 & 1948-1953

mRNA 3' ends: 1957 & 1969 f1 single-strand DNA origin: 2016-2471 SV40 origin of replication: 2812-2947 SV40 early promoter Enhancer (72-bp tandem

repeats): 2648-2719 & 2720-2791

21-bp repeats: 2795-2815, 2816-2836 & 2838-2858

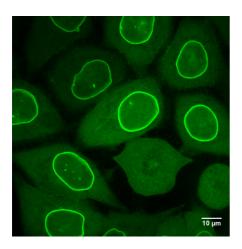
Early promoter element: 2871-2877 Kanamycin/neomycin resistance gene Neomycin phosphotransferase coding sequences: Start codon (ATG): 2999-3001; Stop codon: 3791-

Herpes simplex virus (HSV) thymidine kinase (TK) polyadenylation signal

Polyadenylation signals: 4029-4034 & 4042-4047

ColE1 replication origin: 4325-5007

3793



Product	Code	Size
pLC-TagGFP	lcg	20 μg
Vector type Reporter Reporter codon usage Promoter for Chromobody® Host cells Selection	mammalian expression vector TagGFP2 mammalian PCMV IE mammalian prokaryotic – kanamycin eukaryotic - neomycin (G418)	
Replication	prokaryotic - pUC ori eukaryotic - SV40 ori	
Use	Lamin Chromobody®-TagGFP expression in mammalian cells for non-invasive live cell visualization of endogenous nuclear lamina.	

#### **Vector description**

Lamin Chromobody®-TagGFP plasmid (pLC-TagGFP) is a mammalian expression vector encoding the marker of the nuclear envelope Lamin-V<sub>H</sub>H fused to green fluorescent protein TagGFP2 (from Evrogen). The vector allows expression Lamin Chromobody®-TagGFP fusion protein in eukaryotic (mammalian) cells.

Chromobody® codon usage is optimized for high expression in mammalian cells (humanized) [Haas et al. 1996].

The vector backbone contains immediate early promoter of cytomegalovirus (P<sub>CMV IE</sub>) for protein expression, SV40 origin for replication in mammalian cells expressing SV40 T-antigen, ColE1 origin of replication for propagation in E. coli and f1 origin for singlestranded DNA production. SV40 polyadenylation signals (SV40 poly A) direct proper processing of the 3'-end of the reporter mRNA.

SV40 early promoter (PSV40) provides neomycin resistance gene (Neo<sup>r</sup>) expression to select stably transfected eukaryotic cells using G418. Bacterial promoter (P) provides kanamycin resistance gene expression (Kan<sup>r</sup>) in E. coli. Kan<sup>r</sup>/Neo<sup>r</sup> gene is linked with herpes simplex virus (HSV) thymidine kinase (TK) polyadenylation signals.

## **Expression in mammalian cells**

pLC-TagGFP vector can be transfected into mammalian cells by any known transfection method. If required, stable transformants can be selected using G418 [Gorman 1985].

### Propagation in *E. coli*

Suitable host strains for propagation in E. coli include DH5alpha, HB101, XL1-Blue, and other general purpose strains. Plasmid incompatibility group is pMB1/CoIE1. The vector confers resistance to kanamycin (30 μg/ml) to E. coli hosts. Copy number in E. coli is about

Note: The plasmid DNA was isolated from dam+-methylated E.coli. Therefore some restriction sites are blocked by methylation. If you wish to digest the vector using such sites you will need to transform the vector into a dam host and make fresh DNA.

## Notice to Purchaser:

Chromobody\*-related materials (the Products) are intended for research use only. The Products are covered by U.S. Pat. applications pending. By use of these Products, you accept the terms and conditions of the applicable End User License Agreement (EULA non-profit entities). The CMV promoter is covered under U.S. Patents 5,168,062 and 5,385,839, and its use is permitted for research purposes only. Any other use of the CMV promoter requires a license from the University of lowa Research Foundation, 214 Technology Innovation Center, lowa City, IA 52242.

MATERIAL SAFETY DATA SHEET INFORMATION: To the best of our knowledge, these products do not require a Material Safety Data Sheet. However, all the properties of these products oughly investigated. Therefore, we recommend that you use gloves and eye protection, and wear a laboratory coat when working with these