Product Specification Sheet

Product Name	**pLenti-CAG-MCS-PGK-Puro Lentiviral Expression Vector**
Description	Lentivirus vector based on the human immunodeficiency virus-1 (HIV-1) has become a promising vector for gene transfer studies. The advantageous feature of lentivirus vector is the ability of gene transfer and integration into dividing and non-dividing cells. The pseudotyped envelope with vesicular stomatitis virus envelope G (VSV-G) protein broadens the target cell range. Lentiviral vectors have been shown to deliver genes to neurons, lymphocytes and macrophages, cell types that previous retrovirus vectors could not be used. Lentiviral vectors have also proven to be effective in transducing brain, liver, muscle, and retina in vivo without toxicity or immune responses. Recently, the lentivirus system is widely used to integrate siRNA efficiently in a wide variety of cell lines and primary cells both in vitro and in vivo. Lentivirus particles are produced from 293T cells through transient transfection of plasmids that encode for the components of the virion. Due to safety concerns regarding the infectious nature of HIV-1, recent lentiviral packaging systems have separated the viral components into 3 or 4 plasmids. pLenti-CAG-MCS-PGK-Puro Lentiviral Expression Vector contains the multiple cloning sites (MCS) driven by CAG promoter. The multiple restriction enzyme sites are included for convenient cloning of the promoter of your choice and gene of interest. Puromycin resistant gene driven by PGK promoter is useful for easy detection and selection of transfectants.
Catalog Number	LV301
Size	10 µg at 0.5 µg/µL in TE
Shipping	Room temperature
Storage and Stability	Store at -20°C immediately upon receipt. This product is stable for 6 months when stored as directed.
Quality Control	This plasmid is sequence verified.
Safety Precaution	Remember that you will be working with samples containing infectious virus. Follow the recommended NIH guidelines for all materials containing BSL-2 organisms. The ALSTEM Lentiviral Expression System is designed to minimize the chance of generating replication-competent lentivirus, but precautions should still be taken to avoid direct contact with viral supernatants.
Restricted Use	For Research Use Only. Not for use in diagnostic or therapeutic procedures.

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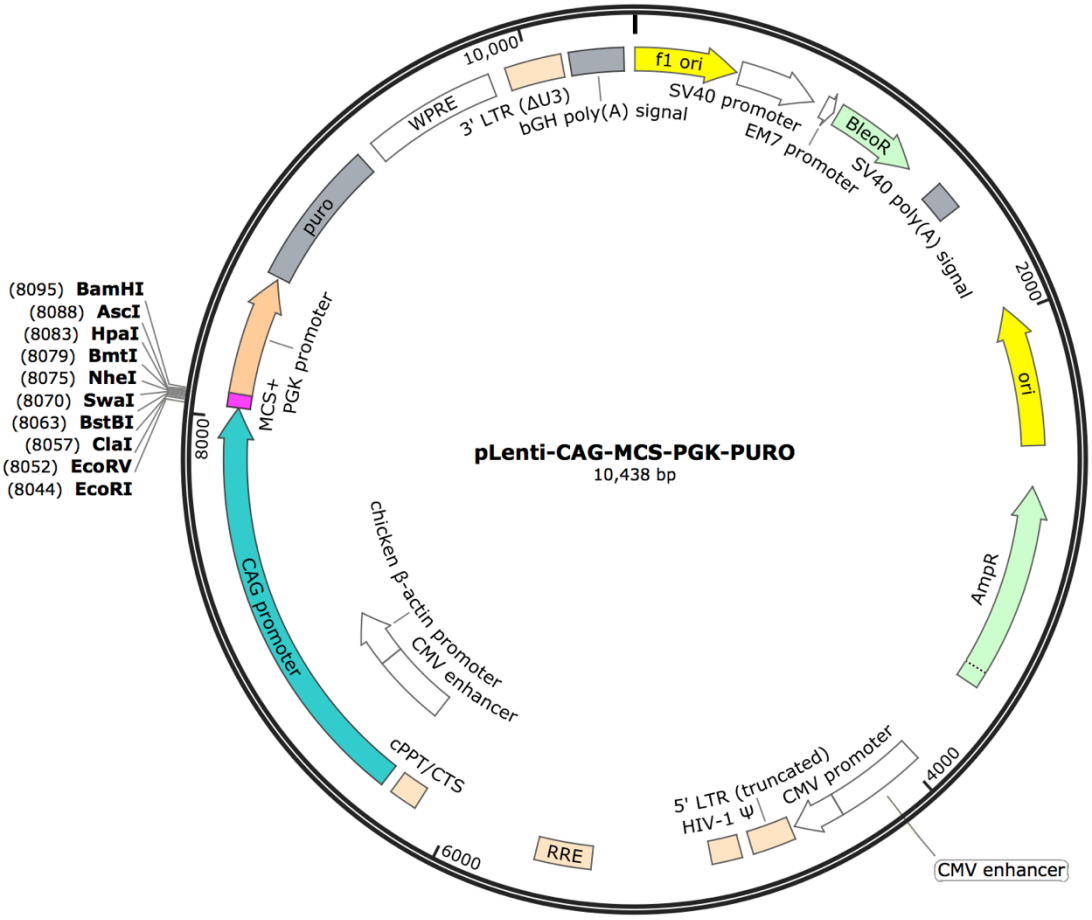
Vector Information

This lentiviral expression vector that contains all elements for efficient and high yield viral production. The multiple restriction enzyme sites driven by CAG promoter are included for convenient cloning of the promoter of your choice and gene of interest. Puromycin resistant gene driven by PGK promoter is useful for easy detection and selection of transfectants.



Note: Bacterial culture of pLenti vectors should be done in medium containing ***50 µg/mL*** *Ampicillin. For maximal plasmid yield and quality, we recommend Stbl3 competent cells (Invitrogen).*

IMPORTANT NOTICE

Store the vial at -20°C immediately upon receipt.

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