## **Product Specification Sheet**

**Product Name** 

pLenti-CMV-HaloTag-MCS-EF1-PURO Lentiviral Vector

Description

HaloTag is a protein fusion tag used for protein labeling and analysis. It allows for covalent, efficient, and specific capture of proteins of interest, enabling applications like protein purification, studying protein interactions, and cellular imaging. The system utilizes a modified protein that can covalently bind to chloroalkane linkers, which can be attached to various molecules like fluorescent dyes, affinity handles, or solid surfaces.

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 nondividing 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. Our third generation lentiviral systems have been designed for increased researcher safety.

pLenti-CMV-HaloTag-MCS-EF1-PURO Lentiviral Reporter Vector contains the HaloTag and MCS for cloning of fusion protein in frame with and at c-terminal of HaloTag driven by CMV promoter and PURO driven by EF1 $\alpha$  promoter. The EF1-PURO cassette permits puromycin selection.

Catalog Number LV1010

Size 10  $\mu$ g at 0.5  $\mu$ g/ $\mu$ L 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.



ALSTEM, INC

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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.

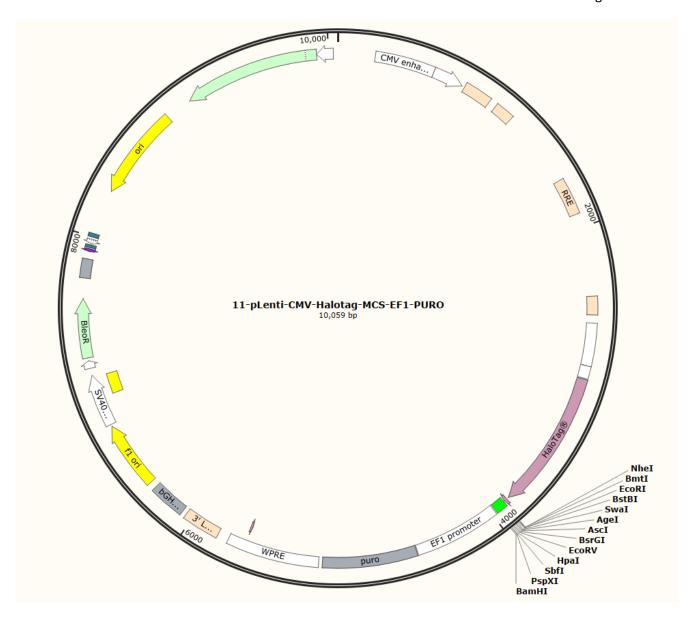
**Restricted Use** For Research Use Only. Not for use in diagnostic or therapeutic procedures.



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## **Vector Information**

This is a lentiviral reporter vector that contains all the elements necessary for efficient and high yield viral production. A ubiquitous CMV promoter drives the expression of the HaloTag-GOI fusion protein and EF1-PURO cassette allows for selection of transduced cells. This vector can be used for stable cell line generation.



Note: Bacterial culture of pLenti vectors should be done in medium containing  $10 \,\mu\text{g/mL}$  Ampicillin. For maximal plasmid yield and quality, we recommend Stbl3 competent cells (Invitrogen).

## IMPORTANT NOTICE



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

