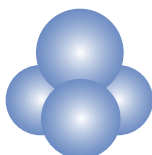


# Product Specification Sheet

|                              |  |
|------------------------------|--|
| <b>Product Name</b>          | <b>pLV-EF1-dCas9-KRAB Lentiviral Vector</b>  |
| <b>Description</b>           | <p>CRISPR (clustered regularly interspaced short palindromic repeats) interference (CRISPRi) is a widely used genetic technique that allows targeted silencing of transcription in bacteria and mammalian cells. The CRISPRi system is comprised of a catalytically inactive Cas9 (dCas9) protein fused with a transcriptional repressor such as the Krüppel-associated box (KRAB) repressor and a customizable single guide RNA (sgRNA). The Cas9-sgRNA complex binds to DNA elements complementary to the sgRNA and causes a steric block that halts transcript elongation by RNA polymerase, resulting in the repression of the target gene.</p> <p>pLV-EF1-dCas9-KRAB Lentiviral Vector expresses the dCas9-KRAB fusion with EF1 promoter.</p> |
| <b>Catalog Number</b>        | DK110  |
| <b>Size</b>                  | 10 µg at 0.5 µg/µL in TE   |
| <b>Shipping</b>              | Room temperature   |
| <b>Storage and Stability</b> | Store at -20°C immediately upon receipt. This product is stable for 6 months when stored as directed.  |
| <b>Quality Control</b>       | This plasmid is sequence verified.   |
| <b>Safety Precaution</b>     | 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.  |
| <b>Restricted Use</b>        | For Research Use Only. Not for use in diagnostic or therapeutic procedures.  |



## **ALSTEM, INC**

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Tel: (510) 708-0096

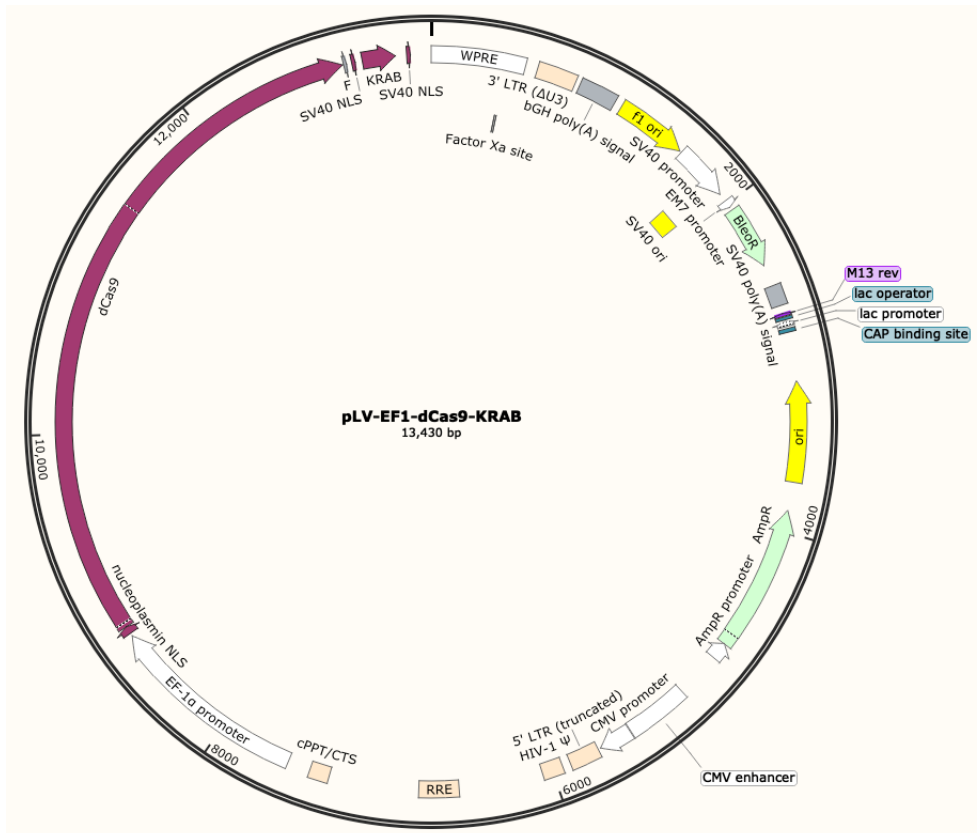
Fax: (866) 605-8766

[www.alstembio.com](http://www.alstembio.com)

[info@alstembio.com](mailto:info@alstembio.com)

## Vector Information

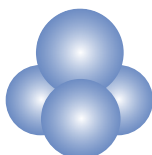
This is a lentiviral expression vector that contains all the elements necessary for efficient and high yield viral production. An ubiquitous EF1a promoter drives the expression of the dCas9-KRAB fusion protein to allow for selection of transduced cells. This vector can be used for stable cell line generation or in combination with a gene specific sgRNA to repress the target gene expression.



*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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