

Material Safety Data Sheet (MSDS)

For Lentiviral Vectors

Details of the supplier of the safety data sheet

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Emergency phone numbers

North America:

CDC Emergency Response: 770-488-7100

Europe: <https://echa.europa.eu/support/helpdesks>

Identification of the biological product

Replication-defective Lentiviral vectors

Identified uses: For research use only.

Description

This MSDS is applicable to all premade and custom-made lentiviral vector products generated in and supplied by FenicsBIO.

Lentiviral vectors are defined by the presence of HIV-derived cis elements flanked by lentiviral long terminal repeats (LTRs). The removal of the viral structural genes renders the vector replication defective and dependent upon a packaging cassette (helper) or packaging cell line. All FenicsBio's lentiviral vectors are self-inactivating (SIN), thus restricting mRNA production from integrating vectors to the internal promoter, severely reducing full-length vector transcripts. Cultures of replication defective lentiviral vectors are non-infectious and are not hazardous materials as defined by OSHA 1919.1200.

Lentiviruses are enveloped viruses and upon leaving the producer cell line, the viral capsid becomes enclosed in a lipid by layer derived from the host cell. By default, the

lentiviral vectors are pseudotyped with the Vesicular stomatitis virus G (**VSV G**). We do provide other pseudotyped lentivirus upon request. Lentiviral cultures are provided as either low concentration (10^5 - 10^6 TU/mL) virus in tissue culture media, or as high concentration, purified ($>1 \times 10^8$ TU/mL) virus in LentiShield™ Buffer. Trace components present in the purified virus include, but are not limited to, inorganic salts, vitamins and other nutrients, and human cellular proteins, carbohydrates, amino acids, and fats. The material is normally shipped and stored frozen.

SECTION I - HEALTH HAZARD

Lentiviral vectors are replication-defective, therefore do not possess danger to humans or animals. However, lentiviral vectors can integrate into the host chromatin, and thus pose some risk of insertional mutagenesis.

Biohazard Classification: Biohazard of Biosafety level 2 (BSL-2)

SECTION II- PHYSICAL DATA

Liquid or frozen particle suspension

SECTION III- FIRE AND EXPLISION

None

SECTION IV- REACTIVITY

Not chemically reactive. Will enter permissive mammalian cells and interact or react with cellular components.

SECTION V - RECOMMENDED PRECAUTIONS CONTAINMENT REQUIREMENTS

Appropriate containment facilities for all activities involving the vector and vector-administered cells, tissues and fluids. This includes BSL2 practices (including animal housing). PROTECTIVE CLOTHING: Laboratory coat, gloves, mask, safety glasses recommended.

SECTION VI - HANDLING SPILLS

Contain spill and decontaminate with 10% chlorine bleach; allow sufficient contact time (30 min) before cleaning up disposal. Decontaminate all wastes before disposal: Dispose of viral stocks by autoclaving at 121°C for 30-45 minutes; Dispose of infected liquid cultures by decontamination with 10% chlorine bleach; Dispose of infected animal carcasses or tissues by incineration. Follow all Federal, State, and Local regulations.

SECTION VII - STORAGE

In sealed containers that are appropriately labeled. Long-term storage at - 80°C.

SECTION VIII SPECIAL PRECAUTIONS AND COMMENTS

All Lentiviral vector-work should be handled by qualified specialist using appropriate safety procedures and precautions. For information on BSL-2 handling, see Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition

The above information is accurate to the best of our knowledge and experience. The user should exercise independent judgment as to the hazards based on all sources of information available. FenicsBIO shall not be held liable for any damage resulting from the handling or use of the above products.