

Biosafety Clearing-House (BCH)

LIVING MODIFIED ORGANISM (LMO)


BCH-LMO-SCBD-45049-4

? Decisions on the LMO ? Risk Assessments

LAST UPDATED: 06 SEP 2012


Living Modified Organism identity

The image below identifies the LMO through its unique identifier, trade name and a link to this page of the BCH. Click on it to download a larger image on your computer. For help on how to use it go to the LMO quick-links page.



<https://bch.cbd.int/database/record?documentID=45049>

Canarypox virus ALVAC strain containing the FeLV-env, FeLV-gag and FeLV-pol genes from the feline leukemia virus



Read barcode or type above URL into internet browser to access information on this LMO in the Biosafety Clearing-House © SCBD 2012

Name

Canarypox virus ALVAC strain containing the FeLV-env, FeLV-gag and FeLV-pol genes from the feline leukemia virus

EN

Transformation event

ALVAC-FL

Developer(s)

- **ORGANIZATION:** MERIAL JAPAN LIMITED | [BCH-CON-JP-44636-2](#)

ORGANIZATION

Merial Japan Limited
2-14-2 Nagata-cho
Chiyoda-ku, Tokyo
100-0014, Japan
Phone: +81-3-5251-8182
Fax: +81-3-5251-8195
Website: <http://jp.merial.com/index.asp>

Description

The recombinant canarypox-feline leukemia virus is known as ALVAC-FL, or vCP97. The attenuated live ALVAC-FL is used as a vaccine against feline leukemia.

EN

Recipient Organism or Parental Organisms

The term "Recipient organism" refers to an organism (either already modified or non-modified) that was subjected to genetic modification, whereas "Parental organisms" refers to those that were involved in cross breeding or cell fusion.

[BCH-ORGA-SCBD-45008-6](#) ORGANISM | CANARYPOX VIRUS (CNPV) |

Viruses

Point of collection or acquisition of the recipient organism or parental organisms

Strain: Canarypox virus ALVAC strain

EN

Characteristics of the modification process

Vector

vCP97

EN

Techniques used for the modification

Other (Homologous recombination?)

Introduced or modified genetic element(s)

Some of these genetic elements may be present as fragments or truncated forms. Please see notes below, where applicable.

[BCH-GENE-SCBD-45046-5](#) FELINE LEUKEMIA VIRUS ENVELOPE GLYCOPROTEIN | (FELINE LEUKEMIA VIRUS) |

Protein coding sequence | Production of medical or pharmaceutical compounds (human or animal) (Vaccines)

[BCH-GENE-SCBD-45047-4](#) FELINE LEUKEMIA VIRUS GAG GENE | (FELINE LEUKEMIA VIRUS) |

Protein coding sequence | Production of medical or pharmaceutical compounds (human or animal) (Vaccines)

[BCH-GENE-SCBD-45048-4](#) FELINE LEUKEMIA VIRUS POL GENE | (FELINE LEUKEMIA VIRUS) |

Protein coding sequence | Production of medical or pharmaceutical compounds (human or animal) (Vaccines)

Notes regarding the genetic elements present in this LMO

The genetic sequence of the glycoprotein (FeLV-env gene), a portion of the reverse transcriptase (FeLV-pol gene) and the complete nucleoprotein (FeLV-gag gene) from the feline leukemia virus were inserted into the genomic DNA of a plaque purified isolate of the parent canarypox strain ALVAC.

The transfer of the target genes into ALVAC is done by co-transfecting chicken embryonic fibroblast cells with (i) the expression cassette plasmid into which the target genes (FeLV-env, -gag and -pol) and the promoter had been transferred by the calcium phosphate method and (ii) the rescue canarypox virus (ALVAC strain), causing homologous recombination in the cytoplasm and thus transferring the target gene into ALVAC.

Note: The disease "feline leukemia" is caused by a virus (the "feline leukemia virus", FeLV). FeLV is usually transmitted between infected cats when the transfer of saliva or nasal secretions is involved. If not defeated by the animal's immune system, the virus can be lethal. Despite its name, the disease is not a form of cancer. The name stems from the fact that the first disease associated with the virus was a form of leukemia, and by the time it was discovered that the virus was the causal agent, the misleading name was already being used by pet owners.

EN

LMO characteristics

Modified traits

Resistance to diseases and pests
Viruses

Common use(s) of the LMO

Vaccine

Additional Information

Other relevant website addresses and/or attached documents

? [vCP97enRi- Outline of the Biological Diversity Risk Assessment Report \(English \)](#)

BCH-LMO-SCBD-45049-4

Further Information

Questions about the Cartagena Protocol on Biosafety or the operation of the Biosafety Clearing-House may be directed to the Secretariat of the Convention on Biological Diversity.

Secretariat of the Convention on Biological Diversity

413 rue Saint-Jacques, suite 800
Montreal, Québec, H2Y 1N9
Canada
Fax: +1 514 288-6588
Email: secretariat@cbd.int