

Biosafety Clearing-House (BCH)

LIVING MODIFIED ORGANISM (LMO)


BCH-LMO-SCBD-105659-1

[? Decisions on the LMO ? Risk Assessments](#)

LAST UPDATED: 30 JUN 2014

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.



Potato Modified for insect resistance

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

<https://bch.cbd.int/database/record?documentID=105659>



Name

Potato Modified for insect resistance

EN

Transformation event

cry3aM potato

Developer(s)

- **PERSON:** PHD OKSANA URIEVNA URBANOVICH | [BCH-CON-SCBD-105638-3](#)

PERSON

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RELATED ORGANIZATION

Description

Potato was genetically modified with the insertion of a codon optimised Cry3a (Cry3aM). The Cry3aM gene encodes for the Cry3A endotoxin, which confers insecticidal activity against the Colorado beetle.

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-12106-6](#) ORGANISM | SOLANUM TUBEROSUM (POTATO, SOLTU) |
Crops

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

Solanum tuberosum, var. Skarb 38-4

EN

Characteristics of the modification process

Vector

pC29

EN

Techniques used for the modification

Agrobacterium-mediated DNA transfer

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-15001-5](#) NEOMYCIN PHOSPHOTRANSFERASE II | (BACTERIA) |
Protein coding sequence | Resistance to antibiotics (Kanamycin)

[BCH-GENE-SCBD-100287-7](#) CAMV 35S PROMOTER |
Promoter

[BCH-GENE-SCBD-100270-6](#) NOPALINE SYNTHASE GENE PROMOTER |
Promoter

[BCH-GENE-SCBD-100269-8](#) NOPALINE SYNTHASE GENE TERMINATOR |
Terminator

[BCH-GENE-SCBD-14989-5](#) CRY3A | BACILLUS THURINGIENSIS - BT, BACILLUS, BACTU |
Protein coding sequence | Resistance to diseases and pests (Insects, Coleoptera (beetles))

Notes regarding the genetic elements present in this LMO

The Cry3a gene was codon modified to obtain a gene designated as Cry3aM.
The Cry3aM gene is under the control of the CaMV 35s promoter.

EN

LMO characteristics

Modified traits

Resistance to diseases and pests
Insects

Coleoptera (beetles)

Colorado potato beetle (*Leptinotarsa decemlineata*)

Resistance to antibiotics
Kanamycin

[BCH-LMO-SCBD-105659-1](#)

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**

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