

Biosafety Clearing-House (BCH)

LIVING MODIFIED ORGANISM (LMO)

BCH-LMO-SCBD-15100-7

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

LAST UPDATED: 13 MAY 2013

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.



BPS-25271-9
Amflora™ Potato

CBD

<https://bch.cbd.int/database/record?documentID=15100>



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

Name

Amflora™ Potato

EN

Transformation event

EH92-527-1

Unique identifier

BPS-25271-9

Developer(s)

- [ORGANIZATION: AMYLOGEN HB](#) | [BCH-CON-SCBD-15099-1](#)

ORGANIZATION

Amylogen HB

Website: <http://www.corporate.basf.com/en/produkte/biotech/plantscience/?id=V00-JbLWz8og-bcp3D3>, <http://www.swseed.se/>

Description

Amflora™ Potato was modified to produce less amylose starch and thus a higher content of amylopectin. This was done through anti-sense suppression of the granule bound starch synthase (GBSS) protein.

GBSS enzyme is one of the key enzymes in the biosynthesis of starch and catalyses the formation of amylose. When the gene is inactivated through antisense technology, the starch produced has little or no amylose and consists of branched amylopectin, which modifies the physical properties of the starch and is advantageous for the starch processing industry.

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

Characteristics of the modification process

Vector

pHoxwG

EN

Techniques used for the modification

Agrobacterium-mediated DNA transfer

Genetic elements construct

P-gbss-SOLTU 0.989 kb CS-gb 1.943 kb T-nos-RHIRD 0.276 kb

P-nos-RHIRD 0.371 kb CS-nptII-ECOLX 0.983 kb T-nos-RHIRD 0.255 kb

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-14997-6 GRANULE BOUND STARCH SYNTHASE GENE PROMOTER | (POTATO) |

Promoter

BCH-GENE-SCBD-48072-3 GRANULE-BOUND STARCH SYNTHASE GENE | (POTATO) |

Protein coding sequence | altered carbohydrate composition: increased amylopectin content

BCH-GENE-SCBD-100269-8 NOPALINE SYNTHASE GENE TERMINATOR |

Terminator

BCH-GENE-SCBD-100270-6 NOPALINE SYNTHASE GENE PROMOTER |

Promoter

Notes regarding the genetic elements present in this LMO

The Granule-bound starch synthase gene was inserted in an anti-sense orientation, relative to the promoter therefore resulting in the suppression of endogenous GBSS.

EN

Southern blot analysis indicated that a single copy of the insert was integrated into the host genome with no integration of fragments of the vector backbone.

LMO characteristics

Modified traits

Resistance to antibiotics

Kanamycin

Other

Reduced amylose in starch content

Common use(s) of the LMO

Other (Industrial)

Detection method(s)

External link(s)

? [BPS-25271-9 - EU Reference Laboratory for GM Food and Feed \(EURL-GMFF\)](#) (*English*)

? [BPS-25271-9 - CropLife International Detection Methods Database](#) (*English*)

Additional Information

Other relevant website addresses and/or attached documents

? [BPS-25271-9 - GMO Compass](#) (*English*)

? [BPS-25271-9 - OECD](#) (*English*)

[BCH-LMO-SCBD-15100-7](#)

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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