

Biosafety Clearing-House (BCH)

LIVING MODIFIED ORGANISM (LMO)


BCH-LMO-SCBD-104791-4

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

LAST UPDATED: 17 APR 2020


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.



SYN-Ø53Ø7-1
Agrisure® Duracade™ Maize

<https://bch.cbd.int/database/record?documentID=104791>



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

Name

Agrisure® Duracade™ Maize

EN

Transformation event

Event 5307

Unique identifier

SYN-Ø53Ø7-1

Developer(s)

- **ORGANIZATION:** SYNGENTA SEEDS GMBH | [BCH-CON-SCBD-101875-3](#)

ORGANIZATION

Syngenta Seeds GmbH
Private sector (business and industry)
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Email: info.seeds@syngenta.com
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Description

Event 5307 corn plants contain the transgene ecry3.1Ab encoding a novel rootworm-control protein, eCry3.1Ab, and the transgene pm1 encoding the enzyme phosphomannose

EN

isomerase (PMI).

The eCry3.1Ab protein is an engineered chimera of the modified Cry3A (mCry3A) and Cry1Ab proteins, members of a class of insecticidal proteins derived from *Bacillus thuringiensis*(Bt). The gene *pmi* was obtained from *Escherichia coli*strain K-12 and the protein it encodes was utilized as a plant selectable marker during development of 5307 corn.

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-246-6](#) ORGANISM | ZEA MAYS (MAIZE, CORN, MAIZE) |
Crops

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

Corn line: NP2222

EN

Characteristics of the modification process

Vector

pSYN12274

EN

Techniques used for the modification

Agrobacterium-mediated DNA transfer

Genetic elements construct

P-CMP-CYLCV 0.346 kb	CS-eCry3_1Ab-BACTU 1.960 kb	T-nos-RHIRD 0.253 kb
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P-ubi1-MAIZE 1.993 kb	CS-pmi-ECOLX 1.176 kb	T-nos-RHIRD 0.253 kb
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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-104788-2](#) CESTRUM YELLOW LEAF CURLING VIRUS PROMOTER |
Promoter

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

[BCH-GENE-SCBD-100362-7](#) UBIQUITIN GENE PROMOTER | (MAIZE, CORN) |
Promoter

[BCH-GENE-SCBD-103627-5](#) UBIQUITIN INTRON 1 | (MAIZE, CORN) |
Intron

[BCH-GENE-SCBD-15003-7](#) PHOSPHOMANNOSE ISOMERASE GENE | (BACTERIA) |
Protein coding sequence | Mannose tolerance,Selectable marker genes and reporter genes

BCH-GENE-SCBD-104789-2 ECRY3.1AB |

Protein coding sequence | Resistance to diseases and pests (Insects, Coleoptera (beetles), Western corn rootworm (*Diabrotica virgifera*), Northern corn rootworm (*Diabrotica barberi*))

BCH-GENE-SCBD-101415-9 TI PLASMID LEFT BORDER REPEAT |

Plasmid vector

BCH-GENE-SCBD-101416-6 TI PLASMID RIGHT BORDER REPEAT |

Plasmid vector

Notes regarding the genetic elements present in this LMO

Southern blot analysis indicated that a single intact copy of the transformation cassette was inserted into the maize genome and that there was no integration of any backbone vector fragments. Nucleotide sequencing indicated that the the regulatory and functional elements of the insert were the same as those present in the pSYN12274 plasmid. Sequence analysis also revealed that some truncation occurred at the right border (RB) and left border (LB) ends of the T-DNA during the transformation process.

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LMO characteristics

Modified traits

Resistance to diseases and pests

Insects

Coleoptera (beetles)

Western corn rootworm (*Diabrotica virgifera*)

Northern corn rootworm (*Diabrotica barberi*)

Common use(s) of the LMO

Food

Feed

Additional Information

Other relevant website addresses and/or attached documents

? [SYN-Ø53Ø7-1 - OECD](#) (English)

? [SYN-Ø53Ø7-1 - Australia- New Zealand.pdf](#) (English)

? [SYN-Ø53Ø7-1 - APHIS.pdf](#) (English)

? [SYN-Ø53Ø7-1 - Germany.pdf](#) (English)

? [SYN-Ø53Ø7-1 - Canada](#) (English)

? [Agrisure Duracade™ Syngenta](#) (English)

? [SYN-Ø53Ø7-1 - Syngenta.pdf](#) (English)

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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.

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on Biological Diversity**

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