

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-114157-2

LAST UPDATED: 07 FEB 2019

General information

Name of genetic element

mCry51Aa2

EN

Abbreviation

mCry51Aa2

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-45614-11](#) ORGANISM | BACILLUS THURINGIENSIS (BT, BACILLUS, BACTU) |

Bacteria

Characteristics of the protein coding sequence

Name of the protein expressed by the coding sequence

MCry51Aa2

EN

Biological function of the protein

The mutagenised Cry51Aa2 variant protein, originally derived from soil bacterium *Bacillus thuringiensis* EG2934, is a member of the crystal (Cry) family of proteins that confer enhanced insecticidal activity against hemipteran and thysanopteran pests. Cry proteins, such as MCry51Aa2m, act by selectively binding to specific sites in the insect midgut and form pores, which disrupt the flow of ions, allowing water to enter the cells, cause destruction of the midgut lining by cellular lysis, and eventual death.

EN

Related trait(s) or use(s) in biotechnology

Resistance to diseases and pests

Insects

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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