

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-109361-1

LAST UPDATED: 24 NOV 2015

General information

Name of genetic element

Cry9E

EN

Abbreviation

CS-Cry9E-BACTU

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

Cry9E delta-endotoxin

EN

Biological function of the protein

The Cry9E protein, when expressed, protects the plants against feeding damage of larvae of the lepidopteran insect European corn borer by selectively binding to specific sites localized on the brush border midgut epithelium of susceptible insect species.

EN

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

Resistance to diseases and pests

Insects

Lepidoptera (butterflies and moths)

Additional Information

Cry proteins, of which Cry9E is one among many, act by selectively binding to specific sites localized on the lining of the midgut of susceptible insect species. Following binding, pores are formed that disrupt midgut ion flow, causing gut paralysis and eventual death due to bacterial sepsis. Cry9E is lethal when eaten by the larvae of certain insects and its specificity of action is directly attributable to the presence of specific binding sites in the target insects.

EN

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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.

**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