

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-100887-5

LAST UPDATED: 22 JUN 2021

General information

Name of genetic element

Vegetative insecticidal protein 3Aa20

EN

Abbreviation

CS-vip3Aa20-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

Point of collection or acquisition of the donor organism(s)

Bacillus thuringiensis strain AB88

EN

Characteristics of the protein coding sequence

Name of the protein expressed by the coding sequence

Vegetative insecticidal protein 3Aa20

EN

Biological function of the protein

Vip3A is a group of vegetative insecticidal proteins (i.e., produced during the vegetative stage of bacterial growth) from *Bacillus thuringiensis*, a gram-positive bacterium commonly found in soil. The Vip3A proteins are highly toxic to some lepidopteran insects.

Vip3Aa20 is a mutated form of the vip3Aa19 gene from the *Bacillus thuringiensis* strain AB88. The mutation occurred by two codon changes within the vip3Aa19 coding sequence when this gene was introduced in the maize event MIR162. One of these was a silent mutation and the other codon change resulted in an amino acid substitution. Therefore, the vip3Aa gene

EN

variant present in MIR162 maize has been designated vip3Aa20.

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

Resistance to diseases and pests

Insects

Lepidoptera (butterflies and moths)

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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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