

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-116053-1

LAST UPDATED: 07 MAY 2021

General information

Name of genetic element

Smooth septate junction protein 1

EN

Abbreviation

CS-SSJ1 _RNAi_u-DIAVI

EN

Category

Double-stranded RNA

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-108874-3](#) ORGANISM | DIABROTICA VIRGIFERA VIRGIFERA (WESTERN CORN ROOTWORM, DIAVI) |
Insects

Characteristics of the protein coding sequence

Additional Information

The dsRNA sequence is homologous to a portion of *Diabrotica virgifera virgifera* smooth septate junction 1 (SSJ1) mRNA. The SSJ1 gene (a homologue of *Drosophila melanogaster* snakeskin) encodes a membrane protein, which is required for the proper barrier function of the epithelial lining of insect intestines. Disrupting expression of this gene (via RNA interference) leads to growth inhibition and mortality.

EN

Other relevant website addresses and/or attached documents

- ? [Characterization of DvSSJ1 transcripts targeting the smooth septate junction \(SSJ\) of western corn rootworm \(*Diabrotica virgifera virgifera*\).pdf](#) (English)
- ? [Discovery of midgut genes for the RNA interference control of corn rootworm.pdf](#) (English)
- ? [Molecular characterization of the insecticidal activity of double-stranded RNA targeting the](#)

[smooth septate junction of western corn rootworm \(Diabrotica virgifera virgifera\).pdf](#) (*English*)

[BCH-GENE-SCBD-116053-1](#)

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