

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-101415-9

LAST UPDATED: 22 JUN 2021

General information

Name of genetic element

Ti plasmid left border repeat

EN

Abbreviation

V-LB-RHIRD

EN

Category

Other (Plasmid vector)

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-12081-6](#) ORGANISM | AGROBACTERIUM TUMEFACIENS (AGROBACTERIUM) |
Bacteria

Characteristics of the protein coding sequence

Additional Information

The left border (LB) and right border (RB) of the Ti plasmid (tumour-inducing plasmid) are the signals that flank the T-DNA (transferred DNA) which is introduced into the plant genome upon being infected by the soil bacterium *Agrobacterium tumefaciens*.

When used in modern biotechnology for the development of LMOs, the virulent genes naturally occurring in *Agrobacterium tumefaciens* between the LB and RB are replaced by a DNA cassette containing the gene(s) of interest. Therefore, when a plant is transformed using *Agrobacterium tumefaciens*, the T-DNA containing the cassette with gene(s) of interest is integrated into the plant's genome.

EN

Other relevant website addresses and/or attached documents

? [GMO Safety: using a soil bacterium as a gene transporter](#) (English)

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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