

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-100728-2

LAST UPDATED: 16 JUL 2012

General information

Name of genetic element

Dicamba monooxygenase gene

EN

Abbreviation

CS-DMO

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-103677-3](#) ORGANISM | STENOTROPHOMONAS MALTOPHILIA (S. MALTOPHILIA, STENOTROPHOMONAS) |
Bacteria

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

While the majority of the literature, to date, indicates that *Stenotrophomonas maltophilia* is the donor organism of DMO, there is currently no definite information from the producer that indicates it is in fact the same gene that has been incorporated into the LMO.

EN

Characteristics of the protein coding sequence

Name of the protein expressed by the coding sequence

Dicamba Monooxygenase

EN

Biological function of the protein

DMO (dicamba monooxygenase) catalyzes the degradation of the herbicide dicamba (3,6-dichloro-o-anisic acid) to non-toxic 3,6-dichlorosalicylic acid (3,6-DCSA) in plants, thus conferring herbicide tolerance.

EN

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

Resistance to herbicides

Additional Information

Other relevant website addresses and/or attached documents

? [Dicamba resistance enlarging and preserving biotechnology-based weed management strategies.pdf](#) (*English*)

? [DMO Patent EP1972686A1.pdf](#) (*English*)

[BCH-GENE-SCBD-100728-2](#)

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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