

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-115637-1

LAST UPDATED: 14 JUL 2020

General information

Name of genetic element

Delta-12 desaturase

EN

Alternate genetic element name(s) (synonym(s))

Δ 12-desaturase

EN

Abbreviation

D12D

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-115635-1](#) ORGANISM | PHYTOPHTHORA SOJAE

Characteristics of the protein coding sequence

Biological function of the protein

Delta-12 desaturase catalyzes the formation of a double bond at the 12th position from the carboxy end of the fatty acid, converting oleic acid to linoleic acid.

EN

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

Changes in quality and/or metabolite content

Lipid and fatty acids

Production of medical or pharmaceutical compounds (human or animal)

Omega-3 fatty acids (e.g. DHA)

Additional Information

Delta-12 desaturase is 398 amino acids in length and approximately 46 kDa in size.

EN

Other relevant website addresses and/or attached documents

? [US patent - US8049064 \(Method for producing polyunsaturated C20- and C22-fatty acids with at least four double bonds in transgenic plants\).pdf](#) (*English*)

? [GenBank protein - hypothetical protein PHYSODRAFT_264618 \[Phytophthora sojae\]](#) (*English*)

[BRENDA Enzymes - Information on EC 1.14.19.23 - acyl-lipid \(n+3\)-\(Z\)-desaturase \(ferredoxin\) and Organism\(s\) Phytophthora sojae](#) (*English*)

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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**

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