

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-115286-3

LAST UPDATED: 15 JUL 2020

General information

Name of genetic element

delta-5 desaturase

EN

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

Fatty acyl desaturase 5

EN

FAD5

EN

Abbreviation

Δ5D

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-115271-1](#) ORGANISM | THRAUSTOCHYTRIUM SP. - THRAUSTOCHYTRIDS

Characteristics of the protein coding sequence

Biological function of the protein

Delta-5 desaturase converts dihomo-γ-linolenic acid (20:3) to arachidonic acid (20:4), by removing two hydrogen atoms and creating a double bond at the fifth carbon-carbon bond from the carboxylic acid end in fatty acids.

EN

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

Changes in quality and/or metabolite content
Lipid and fatty acids

Additional Information

Other relevant website addresses and/or attached documents

? [Identification of a D4 Fatty Acid Desaturase from Thraustochytrium.pdf](#) (*English*)

? [NCBI: Protein sequence for Delta-5 desaturase](#) (*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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