

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-115640-2

LAST UPDATED: 15 JUL 2020

General information

Name of genetic element

Omega-3 desaturase

EN

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

ω 3 desaturase

EN

Abbreviation

O3D

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-115639-2](#) ORGANISM | PYTHIUM IRREGULARE |

Characteristics of the protein coding sequence

Biological function of the protein

Omega-3 desaturase catalyzes the conversion of arachidonic acid (20:4) to eicosapentaenoic acid (20:5) by creating a double bond at the third position from the methyl end of arachidonic 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

Omega-3 desaturase is a polypeptide of 363 amino acids, roughly 40 kDa in size.

EN

Other relevant website addresses and/or attached documents

? [Towards the production of high levels of eicosapentaenoic acid in transgenic plants - the effects of different host species, genes and promoter.pdf](#) (*English*)

? [GenBank - Sequence 1 from Patent WO2008022963](#) (*English*)

[BCH-GENE-SCBD-115640-2](#)

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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