## GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-115046-3

LAST UPDATED: 12 JUL 2019

### General information

Name of genetic element

omega-6-desaturase EN

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

ω-6 desaturase EN

Fatty acid desaturase EN

Abbreviation

FAD2-1 EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

### Donor organism

Donor organism(s)

BCH-ORGA-SCBD-10453-6 ORGANISM | GLYCINE MAX (SOYBEAN, SOYA BEAN, SOYA, SOYBN) | Crops

### Characteristics of the protein coding sequence

Biological function of the protein

Omega-6 fatty acid desaturase is involved in the biosynthesis of linoleic (18:2) and linolenic (18:3) acids. It catalyzes the formation of a second double bond in the hydrocarbon chain of the monounsaturated fatty acid oleic (18:1) acid to produce the polyunsaturated fatty acid linoeic (18:2) acid. EN

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

Changes in quality and/or metabolite content

Lipid and fatty acids

**Additional Information**

| | |
|---|---|
| In *Glycine max*, FAD2-1 is localized to the endoplasmic reticulum (microsome) and is seed-specific. | EN |

Other relevant website addresses and/or attached documents

? Isolation and characterization of microsomal omega-6-desaturase gene (fad2-1) from soybean..pdf *( English )*

? UniProtKB - Soybean FAD2-1 - microsomal omega-6-desaturase *( English )*

BCH-GENE-SCBD-115046-3

## 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**
413 rue Saint-Jacques, suite 800
Montreal, Québec, H2Y 1N9
Canada
Fax: +1 514 288-6588
Email: secretariat@cbd.int