

## Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-15010-3

LAST UPDATED: 21 FEB 2014

### General information

Name of genetic element

Flavonoid 3', 5' hydroxylase gene

EN

Abbreviation

CS-F35H-PETHY

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

### Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-12107-5](#) ORGANISM | PETUNIA HYBRIDA (PETUNIA, PETHY) |

Crops

### Characteristics of the protein coding sequence

Name of the protein expressed by the coding sequence

Flavonoid 3', 5' hydroxylase

EN

Biological function of the protein

Flavonoid-3', 5'-hydroxylase (F3'5'H) is the key enzyme in the synthesis of 3', 5'-hydroxylated anthocyanins, which are generally required for the expression of blue or purple flower color.

EN

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

Changes in quality and/or metabolite content  
Pigmentation / Coloration

### Additional Information

Other relevant website addresses and/or attached documents

? [Genetic engineering of the anthocyanin biosynthetic pathway with flavonoid-3', 5'-hydroxylase: specific switching of the pathway in petunia \( English \)](#)

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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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