

## Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-104594-4

LAST UPDATED: 08 FEB 2017

### General information

Name of genetic element

Dihydroflavonol-4-reductase

EN

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

NADPH-dihydromyricetin reductase

EN

Dihydroquercetin reductase

EN

Dihydrokaempferol 4-reductase

EN

Flavanone 4-reductase

EN

Cis-3,4-leucopelargonidin:NADP+ 4-oxidoreductase

EN

Dihydromyricetin reductase

EN

Abbreviation

CS-DFR-DIACA

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

### Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-4954-7](#) ORGANISM | DIANTHUS CARYOPHYLLUS (CARNATION, DIACA) |

Crops

### Characteristics of the protein coding sequence

Name of the protein expressed by the coding sequence

Dihydroflavonol-4-reductase

EN

Biological function of the protein

The gene encodes dihydroflavonol reductase which functions in the biosynthesis pathway of the pink/ red-coloured anthocyanidin 3-O-(6-O-malylglucoside) pigment in carnations.

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

? [Excision of Transposable Elements from the Chalcone Isomerase and Dihydroflavonol 4-Reductase Genes May Contribute to the Variegation of the Yellow-Flowered Carnation \(\*Dianthus caryophyllus\*\).pdf](#) ( *English* )

? [Dihydrokaempferol 4-reductase - Wikipedia](#) ( *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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