

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-15003-7

LAST UPDATED: 27 FEB 2014

General information

Name of genetic element

Phosphomannose Isomerase gene

EN

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

manA

EN

pmi

EN

Abbreviation

CS-pmi-ECOLX

EN

Category

Protein coding sequence

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-14930-5](#) ORGANISM | [ESCHERICHIA COLI \(ECOLX\)](#) |
Bacteria

Characteristics of the protein coding sequence

Name of the protein expressed by the coding sequence

Phosphomannose Isomerase (PMI) protein

EN

Biological function of the protein

Phosphomannose isomerase (PMI) catalyzes the reversible interconversion of mannose 6-phosphate and fructose 6-phosphate. Plant cells lacking this enzyme are incapable of surviving on synthetic medium containing mannose as a carbon source.

EN

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

Selectable marker genes and reporter genes

Other

Mannose tolerance

Additional Information

Other relevant website addresses and/or attached documents

? [Phosphomannose isomerase: An efficient selectable marker for plant transformation \(English \)](#)

[BCH-GENE-SCBD-15003-7](#)

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