

## Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-114674-3

LAST UPDATED: 17 MAY 2019

### General information

Name of genetic element

Granule Bound Starch Synthase 1 Promoter

EN

Abbreviation

P-MeGBSS1

EN

Category

Promoter

Is this genetic element a synthetic molecule?

No

### Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-112539-1](#) ORGANISM | MANIHOT ESCULENTA (CASSAVA, BRAZILIAN ARROWROOT, YUCA, MANIOC, MANDIOCA, MANES) |  
Crops

### Characteristics of the protein coding sequence

### Additional Information

Granule Bound Starch Synthase 1 (*GBSS1*) is required for starch biosynthesis and specifically responsible for elongating amylose polymer. The corresponding gene is expressed in roots, inflorescences, flowers, fruits, and at much higher levels in leaves. Strong induction at the end of the night and the beginning of the light period occurs for the gene *GBSS1*.

EN

Other relevant website addresses and/or attached documents

? [Field testing and exploitation of genetically modified cassava with low-amylose or amylose-free starch in Indonesia.pdf](#) ( English )

? [UNIPROT - Arabidopsis thaliana GBSS1](#) ( English )

? [Accelerated ex situ breeding of GBSS- and PTST1-edited cassava for modified starch.pdf](#) ( English )

## 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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