

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-115355-3

LAST UPDATED: 11 FEB 2021

General information

Name of genetic element

5' untranslated region of α -globulin B

EN

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

P-AGP

EN

Abbreviation

P-alpha_glbB-GOSHI

EN

Category

Promoter

Is this genetic element a synthetic molecule?

No

Donor organism

Donor organism(s)

[BCH-ORGA-SCBD-12080-6](#) ORGANISM | GOSSYPIUM HIRSUTUM (COTTON)

Crops

Characteristics of the protein coding sequence

Additional Information

The 5' untranslated region of the *Gossypium hirsutum* α -globulin B gene consists of the promoter (1108 basepairs) and a 5' transcribed, untranslated sequence (36 basepairs) of the gene. The promoter is seed-specific and confined to middle to late stages of embryo development; only active at 15 days post-anthesis, during the cotyledon expansion stage in the developing embryo and increasing thereafter until embryo maturation. Transcripts under transcriptional control of this promoter are found at high levels in the dry seed. In contrast, the promoter is inactive in the stem, leaf, root, pollen, and floral bud tissues. Additionally, water stress does not induce transcriptional activity.

EN

Other relevant website addresses and/or attached documents

? [USA Patent - US7626081B2.pdf](#) (*English*)

? [Cotton \$\alpha\$ -Globulin Promoter - Isolation and Functional Characterization in Transgenic Cotton, Arabidopsis, and Tobacco.pdf](#) (*English*)

[BCH-GENE-SCBD-115355-3](#)

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