

Biosafety Clearing-House (BCH)

GENETIC ELEMENT (GENE)

BCH-GENE-SCBD-258850-1

LAST UPDATED: 12 JAN 2022

General information

Name of genetic element

lacUV5 promoter

EN

Abbreviation

P-lacUV5-ECOLX

EN

Category

Promoter

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

Additional Information

The *lacUV5* promoter is a mutated *lac* operon promoter containing two base pair mutations in the -10 hexamer region. The promoter functions independent of activator proteins and sequences beyond the core -35 and -10 elements. It is constitutively active and promotes high levels of transcriptional expression in *E. coli*. Thus, it is a common genetic element found in plasmids.

EN

Other relevant website addresses and/or attached documents

? [Use of bacteriophage T7 RNA polymerase to direct selective high-level expression of cloned genes.pdf](#) (English)

? [Structural Studies of lacUV5-RNA Polymerase Interactions in Vitro.pdf](#) (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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