

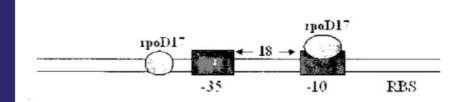




**GRANTED** 

(IN304798)

Temperature inducible promoter derived and modified from enterococcus faecium djl plasmid, and its use in e. coli for production of desired protein



### **NEED**

The ability to produce large amounts of proteins efficiently is a significant challenge in biotechnology. What if there was a way to induce high-efficiency protein expression without expensive methods?

## **MARKET ANALYSIS**

The global biotechnology market is projected to grow at a CAGR of 7.4%, reaching \$1.4 trillion by 2033, driven by advancements in protein production and gene therapy. (Source: Grand View Research, 2023)

# **TECHNOLOGY OVERVIEW**

This technology introduces a temperature-inducible promoter isolated from Enterococcus faecium DJ 1. It enables controlled gene expression in E. coli, leading to efficient production of proteins or peptides in large quantities.

# **Target Industries**

1) Biotechnology Companies focusing on recombinant protein production. 2) Pharmaceutical and Biopharma Industry developing therapeutic proteins. 3) Agricultural Biotechnology for peptide production in research or crop protection.

## **TECHNOLOGY KEY FEATURES**

1) Temperature-inducible promoter for high-efficiency gene expression. 2) Works with E. coli, a widely used host for protein production. 3) Enables large-scale, cost-effective protein production. 4) Promoter derived from Enterococcus faecium DJ 1 for controlled expression.

## AT A GLANCE

SDG 2 (Zero Hunger), SDG 3
 (Good Health and Well-being),
 SDG 9 (Industry, Innovation, and Infrastructure)

### Read more here

Technology is available for licensing/ co-development.

Reach out to Prof. Deepak Chitkara, Coordinator, BITS Technology Enabling Centre,

BITS Pilani Contact Details: tec.bits@pilani.bits-pilani.ac.in, 91 1596-255913

