

T7 Transcription Enhancing Sequence (TEnBOX), Which Overexpresses Gene Products

Tech ID: 20827 / UC Case 2007-208-0

TECHNOLOGY DESCRIPTION

UC San Diego researchers have discovered an enhancer function of an approximately 30 bp DNA fragment that had been reported to function as a protein transduction domain in microbial cells.

APPLICATIONS

Production of recombinant protein or gene products in bacteria or other cells is dramatically increased when the TEnBOX is incorporated into the plasmid vector. The efficiency of the protein expression from the TEnBOX is much higher than reported with the best commercial vectors (pET-21 and pTriEX-3) or with the best translation enhancing elements or downstream boxes.

Another version is regulated by IPTG and is useful for expressing proteins that are toxic to *E. coli*. It is not leaky and its expression is tightly regulated by IPTG. High-yield production of recombinant proteins, such as growth hormones, peptides, enzymes, industrial proteins, and therapeutic proteins in host cells, can lead to obtaining high quality protein with less running cost.

INTELLECTUAL PROPERTY INFO

Pending with worldwide rights; please see U.S. application 60/917,364.

PATENT STATUS

| Country | Type | Number | Dated | Case |
|--------------------------|---------------|-----------|------------|----------|
| United States Of America | Issued Patent | 8,552,168 | 10/08/2013 | 2007-208 |

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OTHER INFORMATION

CATEGORIZED AS

- ▶ **Agriculture & Animal Science**
 - ▶ Transgenics
- ▶ **Research Tools**
 - ▶ Nucleic Acids/DNA/RNA
 - ▶ Reagents

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