



myTXTL®



# Cell-Free Protein Expression Kits

## OVERVIEW

**myTXTL®** is a fast and easy-to-use solution for *in vitro* protein expression. Gene transcription (TX) and translation (TL) is executed in a single reaction tube by a highly efficient cell-free system utilizing the endogenous TXTL machinery from *E. coli*. Meanwhile, compatibility with the well-established T7 expression system is maintained, providing you with maximum flexibility.

## FEATURES & BENEFITS

- Easy** – Simply mix template DNA and ready-to-use myTXTL® Master Mix
- Simple** – Only standard laboratory equipment required
- Fast** – Save time by avoiding transformation, clone selection and cell lysis
- Flexible** – Use plasmid, linear DNA or RNA templates
- Versatile** – Compatible with T7 expression system
- High Yield** – Perform more analyses on a single TXTL reaction

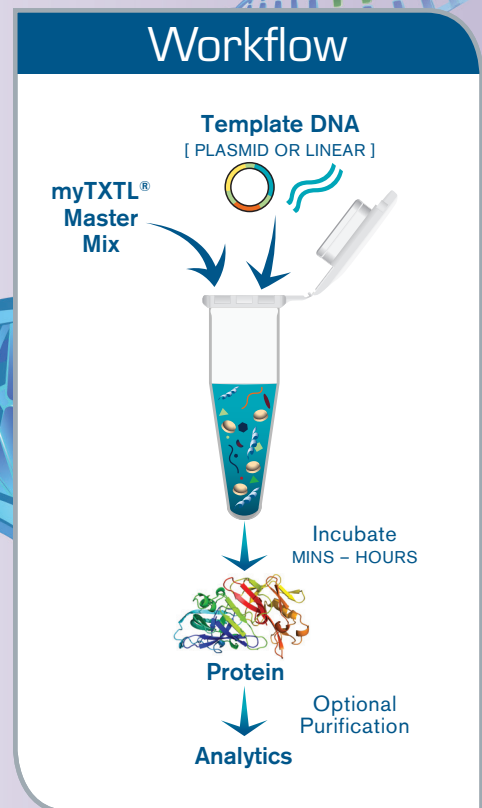
## APPLICATIONS

### Protein Expression

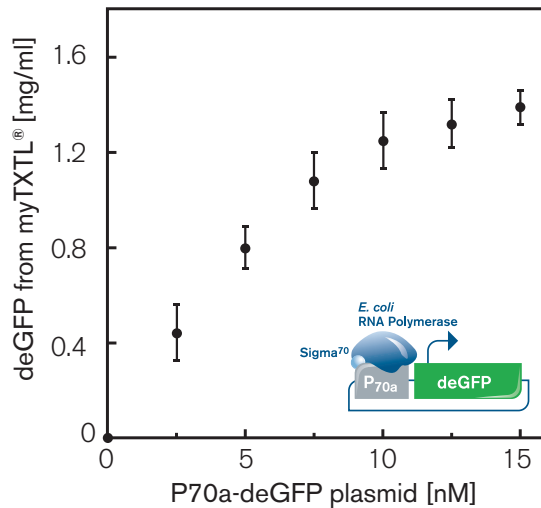
- High-Throughput Screening
- Difficult-to-Express Proteins
- *In vitro* Protein Evolution
- Protein Functionalization
- Molecular Interaction Analysis
- Membrane Proteins

### Synthetic Biology

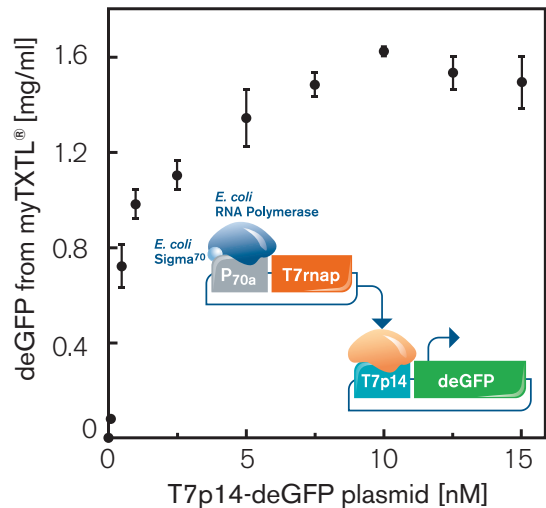
- Gene Circuits
- Rapid Prototyping
- Phage Production



## PERFORMANCE DATA



**Fig 1. Effect of plasmid concentration on protein yield.** The endogenous *E. coli* TXTL machinery (core RNA polymerase & sigma factor  $\sigma^{70}$ ) regulates gene expression on  $P_{70a}$ -vectors encoding a strong constitutive promoter.



**Fig 2. Example of a two-plasmid gene network.** Co-expression of T7 RNA polymerase facilitates T7-promoter controlled gene expression in myTXTL®.

## ENHANCE PROTEIN PRODUCTION WITH LINEAR DNA

Boost protein yield from linear DNA templates by simply using the myTXTL® Linear DNA Expression Kit. Easily screen large DNA libraries of synthesized gene fragments or PCR products in a high-throughput manner using automated liquid handling.

## myTXTL® TOOLBOX 2.0 PLASMID COLLECTION

We offer over 100 plasmids with various promoters and open reading frames (ORFs) to investigate gene regulation and molecular turnover. ORFs include a wide selection of transcription factors, TXTL modulators, and fluorescent reporter proteins to build complex gene circuits. Contact us for a complete list of available plasmids.

## PRODUCT TABLE

Cat. No.	Description	Reactions
507024	myTXTL® Sigma 70 Master Mix Kit	24
507096	myTXTL® Sigma 70 Master Mix Kit	96
508024	myTXTL® Linear DNA Expression Kit	24
508096	myTXTL® Linear DNA Expression Kit	96



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