myTXTL® Pro Kit

Industry-leading cell-free protein expression

Feature	myTXTL	*In vivo*
Single day workflow	✓	✗
Skip lysis/purification	✓	✗
No cloning, use linear DNA	✓	✗
Express toxic proteins	✓	✗

Applications

Protein engineering
High throughput screening
Biosensors/gene circuits
CRISPR-Cas/transposase assays

myTXTL Pro Master Mix exceeds the performance of competitor systems

T7 deGFP expression was quantified following default expression protocols for myTXTL Pro Master Mix and several competitor systems. Reactions proceeded for the times indicated below.

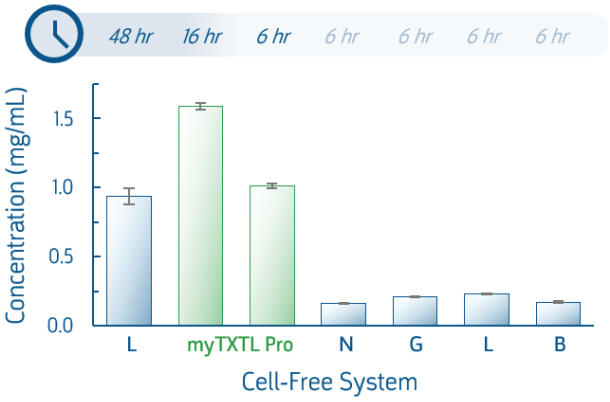

Figure 1. Expression of the myTXTL T7 deGFP Control Plasmid was examined in multiple cell-free systems and quantified by deGFP fluorescence. Cell-free expression was conducted for the duration recommended for each system.

A wide range of proteins express at high-yield with myTXTL

Proteins ranging from 12-160 kDa were expressed following standard myTXTL protocol. 1 µL of each reaction was assayed by SDS-PAGE.

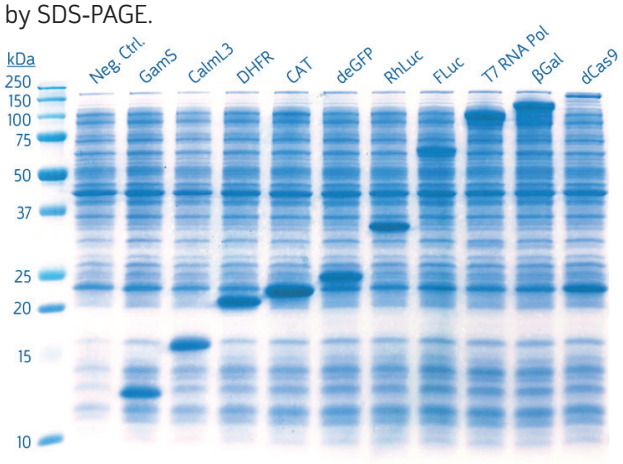

Figure 2. SDS-PAGE visualization of proteins expressed in myTXTL Master Mix using 5 nM Template DNA. 1 µL of myTXTL reaction is visualized per lane.

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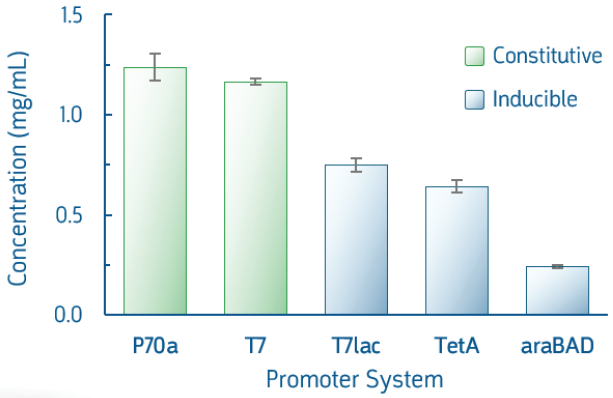
myTXTL®

myTXTL Pro Master Mix expresses protein from most bacterial promoters

Several common promoter systems, both constitutive and inducible, were used to express deGFP in myTXTL Master Mix. Following 16 hour expression, yields of deGFP were ≥0.25 mg/mL for all tested promoters. The myTXTL system is highly flexible and able to utilize almost any bacterial promoter system. The promoter strength and inducer used will affect protein expression level.

Figure 3. Comparison of deGFP expression following myTXTL expression. Reactions using T7lac, TetA, araBad promoters included inducer IPTG (1 mM), anhydrotetracycline (0.2 µg/mL), or arabinose (0.2 %), respectively.



myTXTL Pro Master Mix
Pro Helper Plasmid
T7 deGFP Control Plasmid

myTXTL® Pro Kit

≥1.0 mg/mL
Expression of deGFP Control

Specifications

Protein targets	Enzymes, transcription factors, toxic proteins, other soluble proteins
Typical yield	5 µg to >500 µg
Reaction volume	Variable, 5 µL to >250 µL
Promoter	Any T7 or *E. coli* promoter system
Input DNA	Plasmid or Linear DNA (10–40 ng/µL)
Incubation conditions	Temp = 27°C, Time = 1–24 hours
Reaction Vessel	96/384 well plates or microcentrifuge tubes

Ordering information

Catalog #	Description
540300	myTXTL Pro Cell-Free Expression Kit, 300 µL
541000	myTXTL Pro Cell-Free Expression Kit, 1000 µL
5410ML	myTXTL Pro Cell-Free Expression Kit, 10 mL
503002	T7 deGFP Control Plasmid
502138	P70 deGFP Control Plasmid

Learn more at **www.arborbiosci.com/cell-free-protein-synthesis**

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myTXTL®