

NEW AVAILABLE  
AT MEDSTORE

## NEBExpress® Cell-free *E. coli* Protein Synthesis System

## PURExpress™ *In Vitro* Protein Synthesis Kit

NEW

#E5360S  
10 reactions  
~~\$305~~  
**\$228.75**

#E5360L  
100 reactions  
~~\$2,165~~  
**\$1,848.75**

**25%  
OFF**

#E6800S  
10 reactions  
~~\$378~~  
**\$283.49**

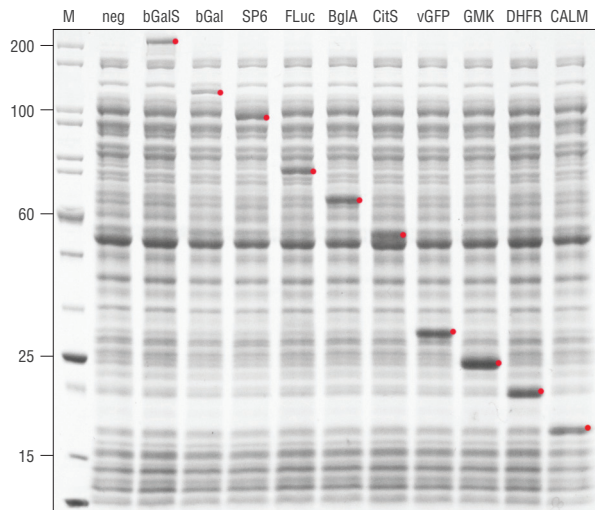
#E6800L  
100 reactions  
~~\$3,825~~  
**\$2,492.19**

The NEBExpress Cell-free *E. coli* Protein Synthesis System is a coupled transcription/translation system designed to synthesize proteins encoded by a DNA template under the control of a T7 RNA Polymerase promoter. The system offers high expression levels, the ability to produce high molecular weight proteins, scalability, and is cost-effective for high throughput expression applications.

### Features:

- Expression of any fusion-protein, including His-tagged proteins
- Synthesize high yields of protein (typically 0.5mg/ml)
- Synthesize proteins ranging in size from 17 to 230 kDa
- Templates can be either plasmid DNA, linear DNA, or mRNA
- Proteins can be synthesized in just 2-4 hrs under control of T7 RNA polymerase
- Minimal protease activity ensures stability of desired target protein
- Protein can be isolated with affinity purification or subject to direct functional analysis

The NEBExpress Cell-free *E. coli* Protein Synthesis System can be used to express a wide range of proteins



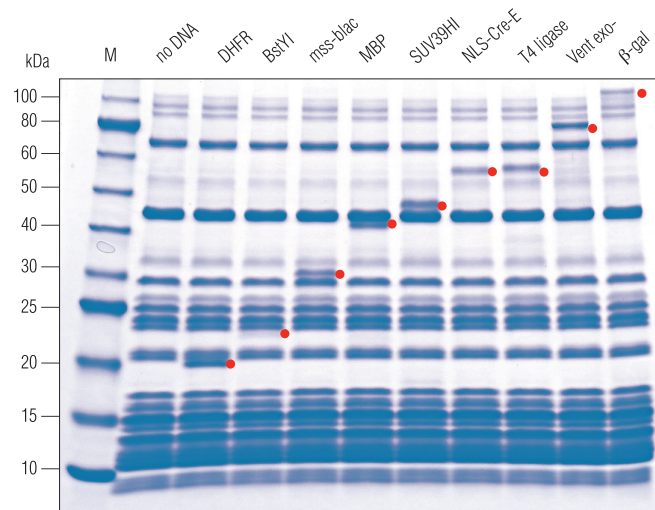
50 µl reactions containing 250 ng template DNA were incubated at 37°C for 3 hours. The red dot indicates the protein of interest. M = Unstained Protein Standard, Broad Range (NEB #P7717), "neg" = negative control, no DNA

A rapid method for gene expression analysis, PURExpress is a novel cell-free transcription/translation system reconstituted from purified components necessary for *E. coli* translation. Express a wide range of proteins free of modification or degradation by mixing two tubes followed by the addition of template DNA. With results available in a few hours, PURExpress saves valuable laboratory time and is ideal for high throughput technologies.

### Features:

- Defined system with all his-tagged proteins for coupled transcription/translation; Ribosome is not his-tagged
- T7 RNA polymerase drive in vitro transcription
- Minimal nuclease and protease activity for stability of synthesized protein and encoding target
- Templates can be either plasmid DNA, linear DNA, or mRNA
- Generate truncated proteins to identify amino acids and functional residues
- Introduce modified, unnatural, or labelled amino acids

The PURExpress *In Vitro* Protein Synthesis Kit can be used to express a wide range of proteins



25 µl reactions containing 250 ng template DNA and 20 units RNase Inhibitor were incubated at 37°C for 2 hours. 2.5 µl of each reaction was analyzed by SDS-PAGE using a 10-20% Tris-glycine gel. The red dot indicates the protein of interest. Marker M is the Protein Ladder.

\*TERMS & CONDITIONS: Offer valid in Canada only. Expires March 31<sup>st</sup>, 2020. Discount is eligible for products listed on this flyer. Promotion not valid for cash or cash equivalent towards purchase(s). No substitutions. Offer may not be applied to existing, pending or prior orders. Cannot be combined with any other promotion or discount. One or more of these products are covered by patents, trademarks and/or copyrights owned or controlled by New England Biolabs, Inc. For more information, please email us at orders.ca@neb.com

Howard Cukier, Ph.D.  
Territory Manager, Ontario  
Cell: (416) 527-2352 | hcukier@neb.com




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# PURExpress® vs. NEBExpress™ Application Chart

PURExpress® *In Vitro* Protein Synthesis Kit (NEB #E6800) and NEBExpress™ Cell-free *E. coli* Protein Synthesis System (NEB #E5360) are complimentary products that can be used for many of the same applications. However, certain applications may favor one system over the other depending on experimental strategy

	PURExpress <i>In Vitro</i> Protein Synthesis Kit (NEB #E6800)	 NEBExpress Cell-free <i>E. coli</i> Protein Synthesis System (NEB #E5360)
<b>Protein Synthesis and Characterization</b>		
Toxic proteins	✓	✓
Protease sensitive proteins	✓	✓
Membrane proteins	✓	✓
Antibodies and fragments	✓	✓
Protein-Protein, Protein-DNA, Protein-RNA interactions & arrays	✓	✓
Direct enzymatic functional assays	✓	✓
Co-expression of multiple target proteins	✓	✓
<b>Protein Engineering</b>		
Directed protein evolution including ribosome and mRNA display	✓	
High-throughput screening	✓	✓
Functional Genomics or Proteomics Arrays	✓	✓
<b>Protein Labeling and Tagging</b>		
Fluorescent labeling of proteins	✓	
Radiolabeling	✓	
His-tagged proteins		✓
Small affinity tags (i.e., FLAG, strep, StrepII, myc, HA)	✓	✓
<b>Translation and Ribosome Studies</b>		
Translational machinery studies	✓	
Chaperone and protein folding studies	✓	
<b>Synthetic Biology</b>		
Metabolic engineering prototyping	✓	✓
Gene circuit studies	✓	✓
Non-natural amino acid incorporation	✓	
<b>Other</b>		
Diagnostics	✓	✓
Diagnostics Antimicrobial studies or drug screening	✓	✓
Scale-up		✓

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Howard Cukier, Ph.D.  
Territory Manager, Ontario  
Cell: (416) 527-2352 | [hcukier@neb.com](mailto:hcukier@neb.com)



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