

New England Biolabs Product Specification

Product Name: NEBExpress™ Cell-Free *E. coli* Protein Synthesis System
Catalog #: E5360S/L
Kit Components: NEBExpress™ S30 Synthesis Extract (P0864)
Protein Synthesis Buffer (2X) (B0864)
RNase Inhibitor, Murine (M1018)
T7 RNA Polymerase (M1019)
Control DHFR-His template (N3273)

Shelf Life: 24 months
Storage Temp: -80°C
Specification Version: PS-E5360S/L v1.0
Effective Date: 14 Nov 2019

Assay Name/Specification (minimum release criteria)

Functional Testing (Cell-Free Protein Synthesis Assay) (DHFR) - A 50 µl reaction in the presence of 250 ng *E. coli* DHFR template DNA containing the components of the NEBExpress™ Cell-Free *E. coli* Protein Synthesis System incubated for 3 hours at 37°C results in the expected 20 kDa product as determined by SDS-PAGE with Coomassie Blue detection.

Functional Testing (Cell-Free Protein Synthesis Assay) (vGFP, Fluorescence) - A 50 µl reaction in the presence of 250 ng *E. coli* vGFP template DNA containing the components of the NEBExpress™ Cell-Free *E. coli* Protein Synthesis System incubated for 5 hours at 37°C results in the expected product as determined by a fluorescence signal ≥ 2 times higher than the reference standard signal.

Functional Testing (Cell-Free Protein Synthesis Assay) (vGFP, SDS-PAGE) - A 50 µl reaction in the presence of 250 ng *E. coli* vGFP template DNA containing the components of the NEBExpress™ Cell-Free *E. coli* Protein Synthesis System incubated for 3 hours at 37°C results in the expected 28 kDa product as determined by SDS-PAGE with Coomassie Blue detection.

* **Individual Product Component Note** - Standard Quality Control Tests are performed for each component included in NEBExpress™ Cell-Free *E. coli* Protein Synthesis System and meet the designated specifications.



Date 14 Nov 2019

Derek Robinson
Director of Quality Control

