

## New England Biolabs Product Specification

*Product Name:* PURExpress<sup>®</sup> Disulfide Bond Enhancer  
*Catalog #:* E6820S  
*Kit Components:* PURExpress<sup>®</sup> Disulfide Bond Enhancer 1 (P6821)  
PURExpress<sup>®</sup> Disulfide Bond Enhancer 2 (B6822)

*Shelf Life:* 24 months  
*Storage Temp:* -20°C  
*Specification Version:* PS-E6820S v1.0  
*Effective Date:* 22 Jun 2018

### Assay Name/Specification (minimum release criteria)

**Functional Testing (Cell-Free Protein Synthesis Assay, vTPA)** - A 25 µl reaction in the presence of 250 ng vTPA (truncated tissue plasminogen activator) template plasmid DNA, 1 µl Enhancer 1, 1 µl Enhancer 2, and 20 units of RNase Inhibitor containing the components of the PURExpress<sup>®</sup> In Vitro Protein Synthesis Kit incubated for 2 hours at 37°C results in the expected 40 kDa product as determined by SDS-PAGE with Coomassie Blue detection.

**Functional Testing (vTPA Activity Assay)** - Five (5) µl of PURExpress<sup>®</sup> vTPA protein synthesis reaction is incubated with 0.4 mM chromozym t-PA substrate in 100 mM Tris pH 8.0 and 0.15% Tween<sup>®</sup> 80 at 37°C for 1 hour. Absorbance readings at 405 nm are taken every 2 minutes in a kinetic assay. An increase in absorbance at 405 nm over time indicates the formation of 4-nitraniline as detected by spectrophotometric analysis.



Date 22 Jun 2018

Derek Robinson  
Director of Quality Control

