

## New England Biolabs Product Specification

*Product Name:* ProtoScript<sup>®</sup> First Strand cDNA Synthesis Kit  
*Catalog #:* E6300S/L  
*Kit Components:* Nuclease-free Water (B1502)  
M-MuLV Enzyme Mix (M0342)  
M-MuLV Reaction Mix (M0343)  
Random Primer Mix (S1330)  
Oligo d(T)<sub>23</sub> VN (S1332)

*Shelf Life:* 18 months  
*Storage Temp:* -20°C  
*Specification Version:* PS-E6300S/L v2.0  
*Effective Date:* 30 Aug 2021

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

**Functional Testing (RT-PCR, Length)** - The performance of M-MuLV Reaction Mix with 1X M-MuLV Enzyme Mix is tested in a 20 µl RT reaction with 1 µg Human total RNA. The length of the product is verified by amplification of the p532 gene using 0.4 µl of the RT reaction and 35 cycles of PCR amplification resulting in the expected 5.5 kb product.

**Functional Testing (RT-PCR, Sensitivity)** - The performance of M-MuLV Reaction Mix with 1X M-MuLV Enzyme Mix is tested in a 20 µl RT reaction with 20 pg Human total RNA. The sensitivity of the product is verified by amplification of GAPDH using 0.4 µl of the RT reaction and 35 cycles of PCR amplification resulting in the expected product.

\* **Individual Product Component Note** - Standard Quality Control Tests are performed for each component included in ProtoScript<sup>®</sup> First Strand cDNA Synthesis Kit and meet the designated specifications.

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Date 30 Aug 2021

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