

New England Biolabs Certificate of Analysis

Product Name: *Ph.D.™-7 Phage Display Peptide Library Kit*
 Catalog Number: *E8100S*
 Lot Number: *10043452*
 Expiration Date: *05/2021*
 Storage Temperature: *-20°C*
 Specification Version: *PS-E8100S v1.0*

Ph.D.™-7 Phage Display Peptide Library Kit Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
S1259AVIAL	-96 gIII Sequencing Primer (20-mer)	10043734	Pass
S1258AVIAL	-28 gIII Sequencing Primer (22-mer)	10043733	Pass
N7024AVIAL	Biotin	10043732	Pass
N7023AVIAL	Streptavidin, lyophilized	10040079	Pass
E8102AVIAL	Ph.D.™-7 Phage Display Peptide Library	10043453	Pass
E4104SVIAL	E.coli K12 ER2738	10034478	Pass

Assay Name/Specification	Lot # 10043452
<p>Absolute Phage Titer Infection of a mid-log culture of E. coli ER2738 with Ph.D.™-7 Phage Display Peptide Library followed by plating, yields $\geq 1 \times 10^{13}$ pfu/ml.</p>	Pass
<p>Functional Testing (Panning) A 100-fold representation of the Ph.D.™-7 Phage Display Peptide Library containing approximately 10^{11} pfu is diluted in 200 μl TBS and panned against 300 ng β-endorphin monoclonal antibody. The bound phage is affinity captured using magnetic beads and eluted with 1 ml of 0.2M Glycine-HCl, pH 2.2. After three rounds of selection, $\geq 75\%$ of sequences contain a motif related to the known epitope for the antibody.</p>	Pass
<p>Phage Contamination (Environmental) A 1:100 dilution of an overnight culture of E. coli ER2738 was made in 20 ml LB, to which 10^5 pfu of Ph.D.™-7 Phage Display Peptide Library was added. The flask was incubated at 37°C on a rotating shaker for 5 hours. A 1 ml volume of culture was removed and centrifuged. Five microliters (5 μl) of phage-containing supernatant was used for three successive rounds of amplification. The final culture supernatant was plated on three LB/IPTG/Xgal plates and then titered. Fewer than 5% clear or white plaques were observed in a minimum of 100 total plaques counted on each plate.</p>	Pass

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Sequence Verification (DNA) The Ph.D. [™] -7 Phage Display Peptide Library was sequenced using 5'-CCCATGTACCGTAACACTGAGTTTC-3' as a primer to confirm the correct form of the cloned insert on the displayed peptide, X7-GGG.	Pass

This product has been tested and shown to be in compliance with all specifications.



Beth Paschal
Production Scientist
16 May 2019



Michael Tonello
Packaging Quality Control Inspector
29 May 2019