

New England Biolabs Certificate of Analysis

Product Name: *Ph.D.TM-12 Phage Display Peptide Library Kit*
 Catalog Number: *E8110S*
 Packaging Lot Number: *10092623*
 Expiration Date: *10/2022*
 Storage Temperature: *-20°C*
 Specification Version: *PS-E8110S v2.0*

Ph.D. TM -12 Phage Display Peptide Library Kit Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
S1259AVIAL	-96 gIII Sequencing Primer (20-mer)	10066252	Pass
S1258AVIAL	-28 gIII Sequencing Primer (22-mer)	10066251	Pass
N7024AVIAL	Biotin	10066253	Pass
N7023AVIAL	Streptavidin, lyophilized	10081107	Pass
E8111AVIAL	Ph.D. TM -12 Phage Display Peptide Library	10085513	Pass
E4104SVIAL	E.coli K12 ER2738	10055843	Pass

Assay Name/Specification	Lot # 10092623
<p>Absolute Phage Titer Infection of a mid-log culture of E. coli ER2738 with Ph.D.TM-12 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.TM-12 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 10^3 pfu of Ph.D.TM-12 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. A volume of culture supernatant equivalent to the initial PFU input was added to a second, 20 ml culture like the first. The final culture supernatant was plated on three LB/IPTG/Xgal plates and then titered. Fewer than 20% clear or white plaques were observed in a minimum of 100 total plaques counted on</p>	Pass

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<p>each plate.</p> <p>Sequence Verification (DNA) The Ph.D.[™]-12 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, X12-GGG.</p>	<p>Pass</p>

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

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Alicia Bielik
Production Scientist
30 Dec 2020



Michael Tonello
Packaging Quality Control Inspector
30 Dec 2020