

New England Biolabs Certificate of Analysis

Product Name: *Ph.D.[™]-12 Phage Display Peptide Library*
Catalog Number: *E8111L*
Packaging Lot Number: *10134491*
Expiration Date: *01/2024*
Storage Temperature: *-20°C*
Storage Conditions: *25 mM Tris-HCl, 75 mM NaCl, 50% Glycerol, (pH 7.5 @ 25°C)*
Specification Version: *PS-E8111L v1.0*

Ph.D. [™] -12 Phage Display Peptide Library Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
E8111LVIAL	Ph.D. [™] -12 Phage Display Peptide Library	10134489	Pass

Assay Name/Specification	Lot # 10134491
<p>Absolute Phage Titer Infection of a mid-log culture of E. coli ER2738 with Ph.D.[™]-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.[™]-12 Phage Display Peptide Library containing approximately 1011 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.[™]-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. 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
<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>	Pass

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

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Alicia Bielik
Production Scientist
21 Feb 2022



Josh Hersey
Packaging Quality Control Inspector
21 Feb 2022