

New England Biolabs Certificate of Analysis

Product Name: *Ph.D.[™]-12 Phage Display Peptide Library Kit*
 Catalog Number: *E8110S*
 Lot Number: *10044929*
 Expiration Date: *06/2021*
 Storage Temperature: *-20°C*
 Specification Version: *PS-E8110S v2.0*

Ph.D. [™] -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)	10043734	Pass
S1258AVIAL	-28 gIII Sequencing Primer (22-mer)	10043733	Pass
N7024AVIAL	Biotin	10043732	Pass
N7023AVIAL	Streptavidin, lyophilized	10040079	Pass
E8111AVIAL	Ph.D. [™] -12 Phage Display Peptide Library	10045945	Pass
E4104SVIAL	E.coli K12 ER2738	10034478	Pass

Assay Name/Specification	Lot # 10044929
<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
<p>Phage Contamination (Environmental) A 1:100 dilution of an overnight culture of E. coli ER2738 was made in 20 ml LB, to which 10³ 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. 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 each plate.</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</p>	Pass

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<p>selection, ≥75% of sequences contain a motif related to the known epitope for the antibody.</p> <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 ≥ 1 x 10¹³ pfu/ml.</p>	<p>Pass</p>

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

Beth M. Paschal

Beth Paschal
Production Scientist
26 Jun 2019



Josh Hersey
Packaging Quality Control Inspector
26 Jun 2019