

## New England Biolabs Certificate of Analysis

Product Name: Ph.D.<sup>™</sup>-C7C Phage Display Peptide Library Kit  
 Catalog Number: E8120S  
 Packaging Lot Number: 10081844  
 Expiration Date: 08/2022  
 Storage Temperature: -20°C  
 Specification Version: PS-E8120S v2.0

Ph.D. <sup>™</sup> -C7C 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
E8121AVIAL	Ph.D. <sup>™</sup> -C7C Phage Display Peptide Library	10081106	Pass
E4104SVIAL	E.coli K12 ER2738	10055843	Pass

Assay Name/Specification	Lot # 10081844
<p><b>Absolute Phage Titer</b>            Infection of a mid-log culture of E. coli ER2738 with Ph.D.<sup>™</sup>-C7C Phage Display Peptide Library followed by plating, yields <math>\geq 1 \times 10^{13}</math> pfu/ml.</p>	Pass
<p><b>Functional Testing (Panning)</b>            A 100-fold representation of the Ph.D.<sup>™</sup>-C7C Phage Display Peptide Library containing approximately <math>10^{11}</math> pfu is diluted in 200 <math>\mu</math>l TBS and panned against 300 ng of anti-FLAG<sup>®</sup> 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, <math>\geq 75\%</math> of sequences contain a motif related to the known epitope for the antibody.</p>	Pass
<p><b>Phage Contamination (Environmental)</b>            A 1:100 dilution of an overnight culture of E. coli ER2738 was made in 20 ml LB, to which <math>10^3</math> pfu of Ph.D.<sup>™</sup>-C7C 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><b>Sequence Verification (DNA)</b> The Ph.D.<sup>™</sup>-C7C 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, ACX7C-GGG.</p>	<p><b>Pass</b></p>

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

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28 Aug 2020



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