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## New England Biolabs Certificate of Analysis

Product Name: Ph.D.™-C7C Phage Display Peptide Library Kit

Catalog Number: E8120S
Packaging Lot Number: 10171873
Expiration Date: 11/2024
Storage Temperature: -20°C

Specification Version: PS-E8120S v2.0

Ph.D.™-C7C Phage Display Peptide Library Kit Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
S1259AVIAL	-96 glll Sequencing Primer (20-mer)	10169936	Pass	
S1258AVIAL	-28 glll Sequencing Primer (22-mer)	10169935	Pass	
N7024AVIAL	Biotin	10169938	Pass	
N7023AVIAL	Streptavidin, lyophilized	10159999	Pass	
E8121AVIAL	Ph.D.™-C7C Phage Display Peptide Library	10163507	Pass	
E4104SVIAL	E.coli K12 ER2738	10124262	Pass	

Assay Name/Specification	Lot # 10171873
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.™-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 each plate.	Pass
Absolute Phage Titer Infection of a mid-log culture of E. coli ER2738 with Ph.D.™-C7C Phage Display Peptide Library followed by plating, yields ≥ 1 x 101³ pfu/ml.	Pass
Functional Testing (Panning) A 100-fold representation of the Ph.D.™-C7C Phage Display Peptide Library containing approximately 1011 pfu is diluted in 200 µl TBS and panned against 300 ng of anti-FLAG® 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, ≥75% of sequences contain a motif related to the known epitope for the	Pass



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antibody.	
Sequence Verification (DNA) The Ph.D.™-C7C Phage Display Peptide Library was sequenced using 5'-CCATGTACCGTAACACTGAGTTTC-3' as a primer to confirm the correct form of the cloned insert on the displayed peptide, ACX7C-GGG.	Pass

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Beth M. Paschel

Beth Paschal Production Scientist 08 Nov 2022 Michael Tonello

Packaging Quality Control Inspector

15 Nov 2022

