

Fusion BioLabs Ready-to-Use Synthetic VHH Phage Display Library Information

SKU# ADL-11: Ready-to-Use Synthetic VHH Phage Display Library Kit

Format: VHH with HA Tag and 6xHis Tag (pelB leader sequence-VHH-HA tag-6xHis tag) Framework:

ADE99145

>ADE99145

MKYLPTAAAGLLLLLAAQPAMADVQLQASGGGVSQAGGSLRLSCAASGYTXXXXXXXXWFRQAPGKEREG
 VAAIXXXXXXXXTYADSVKGRFTISQDNAKNTVYLLMNSLEPEDTAIYYCAAXXXXXXXXXXXXXXXXXXXX
 XXXXXSWGQGTQVTVSSAAAYPYDVPDYGSHHHHHH

Mutated: CDR1, CDR2 and CDR3 (Saturation mutagenesis)

Diversity: 9.6×10^{10}

The diversity and in-frame of the library was checked by NGS.

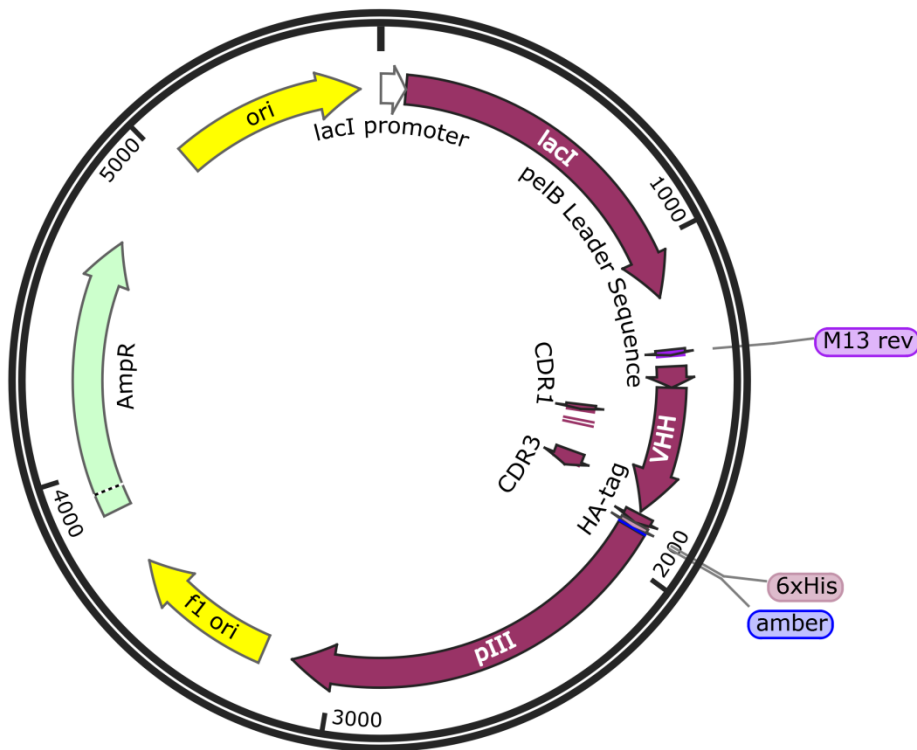
The Library was constructed by saturation mutagenesis of all 3 CDRs and their CDR combination. The main library consists of 5 sub-libraries with the following CDR composition and saturation mutated CDR combination.

Sub-libraries	CDR1 (7 amino acids)	CDR2 (6 amino acids)	CDR3 (17 or 23 amino acids)
1	Saturation Mutagenesis	Saturation Mutagenesis	M17 Saturation Mutagenesis
2	Saturation Mutagenesis	Saturation Mutagenesis	M23 Saturation Mutagenesis
3	No Mutagenesis	No Mutagenesis	M17 Saturation Mutagenesis
4	No Mutagenesis	No Mutagenesis	M23 Saturation Mutagenesis
5	No Mutagenesis	Saturation Mutagenesis	M23 Saturation Mutagenesis

Kit contents

The following components are included in the Kit.

Component	Quantity	Composition
VHH Synthetic library (ready-to-panning; 8.0×10^{12} pfu/ml)	1.0 ml	1×PBS with 50% glycerol
M13KO7 Helper Phage (2×10^{12} pfu/ml)	0.5 ml	1×PBS with 50% glycerol
Chemically Competent TG1 E. coli	0.5 ml	2×YT with 25% Glycerol
M13 Reverse Primer (1.6 μM)	0.2 ml	1×TE Buffer
pIII Reverse Primer (1.6 μM)	0.2 ml	1×TE Buffer



Synthetic VHH phage display library vector map
5703 bp

Comments for Fusion BioLabs Vector

Synthetic VHH Library (one clone)

lac I promoter: bases 5-82

lac I ORF: bases 83-1165

M13 Reverse priming site: bases 1331-1347

pelB leader sequence: bases 1383-1448

Polyhistidine (6xHis) site: bases 1887-1904

HA Hemagglutinin A (HA) epitope: bases 1857-1886

Amber stop codon: bases 1905-1907

pIII ORF: 1908-3128

f1 origin: bases 3221-3676

Ampicillin resistance ORF: bases 3863-4723

pUC origin: bases 5055-5643