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# Fusion BioLabs Ready-to-Use Human Synthetic scFv Phage Display Library Information

**SKU# ADL-04:** Ready-to-Use Human Synthetic scFv Phage Display Library Kit

Format: scFv with 6xHis Tag and HA Tag (OmpA leader sequence-VH-Linker-Vk-6xHis tag-HA tag)

Diversity:  $8.9 \times 10^{10}$

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

**The human synthetic scFv Library was constructed by saturation mutagenesis of all 6 CDRs (3 HCDRs and 3 LCDRs).**

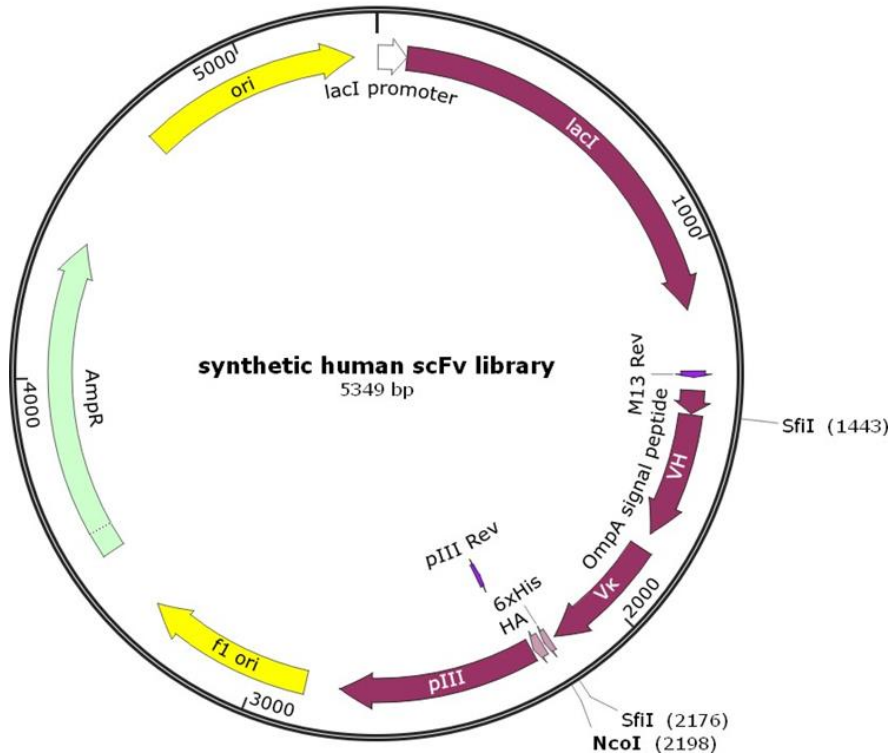
VH Gene Family: IGHV4

VL Gene Family: IGKV2

## Kit contents

The following components are included in the Kit.

Component	Quantity	Composition
Human Synthetic scFv Library (ready-to-panning phage; $4.5 \times 10^{12}$ pfu/ml)	1.0 ml	1×PBS with 50% glycerol
M13KO7 Helper Phage ( $2 \times 10^{12}$ 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 $\mu$ M)	0.2 ml	1×TE Buffer
pIII Reverse Primer (1.6 $\mu$ M)	0.2 ml	1×TE Buffer



## Comments for Fusion BioLabs Vector

### Human Synthetic scFv (one typical clone)

*lac I* promoter: bases 5-82  
*lac I* ORF: bases 83-1165  
M13 Reverse priming site: bases 1331-1347  
OmpA leader sequence: bases 1383-1445  
Polyhistidine (6xHis) site: bases 2184-2201  
HA Hemagglutinin A (HA) epitope: bases 2208-2234  
Amber stop codon: bases 2238-2240  
pIII engineered ORF: 2241-2774  
pIII Reverse priming site: 2272-2288  
f1 origin: bases 2867-3322  
Ampicillin resistance ORF: bases 3509-4369  
pUC origin: bases 4701-5289