Fusion BioLabs Z-affibody Ready-to-Use Phage Display Library Information

SKU# AFF-01: Ready-to-Use Affibody Phage Display Library Kit

Background: Affibody molecules are a class of small robust scaffold proteins derived from the IgG binding domain of *Staphylococcus aureus* protein A (SPA). Thirteen specific amino acids in the three α-helix regions of the IgG binding domain can be randomly mutated to construct an affibody library. This library can be screened to obtain affibody molecules with high affinity and specificity to any given target molecule

Format: OmpA leader sequence-Z-affibody

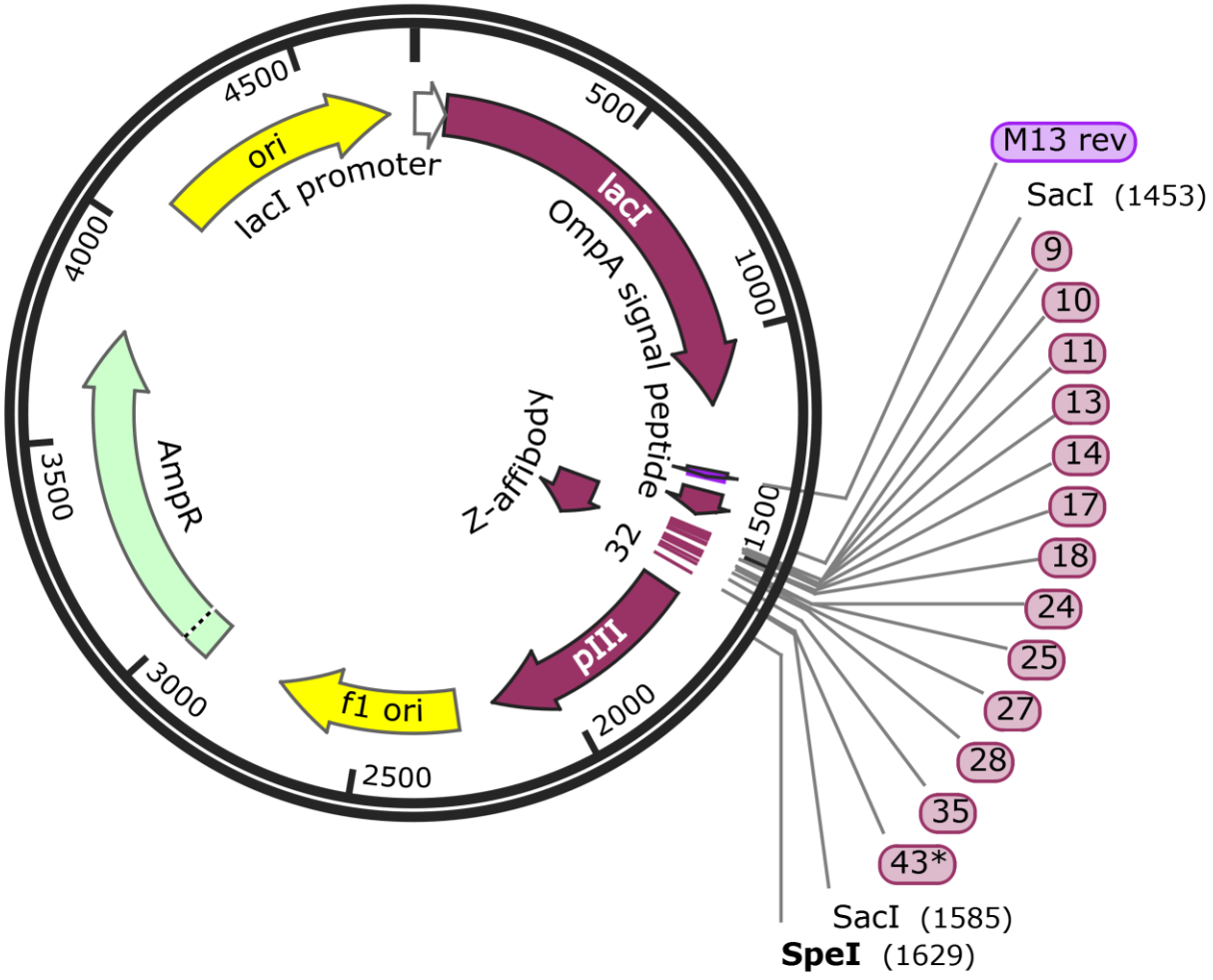
Library Diversity: 4.8×10^{11}

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

Oak Biosciences Z-format Affibody combinatorial ready-to-panning phage library was constructed by saturation mutagenesis of the Z domain with random amino acid residues at positions 9, 10, 11, 13, 14, 17, 18, 24, 25, 27, 28, 32 and 35.

Kit contents
The following components are included in the Kit.

Component	Quantity	Composition
X24 peptide phage display library (ready-to-panning; 9.2×10^{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	2xYT with 25% Glycerol
M13 Reverse Primer (1.6 μM)	0.2 ml	1×TE Buffer



Z-affibody phage display library vector map

4746 bp

Comments for Fusion BioLabs Library Vector

Z-form affibody Phage Display Library (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
Z-affibody: bases 1455-1628
Amber stop codon: bases 1635-1637
pIII engineered ORF: 1638-2171
f1 origin: bases 2264-2719
Ampicillin resistance ORF: bases 2906-3766
pUC origin: bases 4098-4686