APD-05 | Mouse scFv Phage Display Library Construction Kit

pAPD-m-scFv | Product Data Sheet

Product Overview

The APD-05 kit supports construction of mouse single-chain variable fragment (scFv) phage display libraries. Mouse VH and VL repertoires are amplified from cDNA and joined by overlap-extension PCR to generate scFv inserts. The pAPD-m-scFv phagemid supports restriction-enzyme cloning by either validated method: **Method A (SacI/SpeI)** or **Method B (SfiI)**.

Library Construction Workflow

1. Amplify mouse VH and VL repertoires from cDNA using the supplied primer mixes.
2. Assemble VH and VL repertoires into scFv fragments by overlap-extension PCR.
3. Digest purified scFv fragments and the pAPD-m-scFv vector by Method A or Method B.
4. Ligate purified inserts into the digested vector, transform competent cells, and prepare the phage display library.

Key Features

scFv phage display: Supports expression and selection of mouse scFv antibody fragments.

Flexible cloning: Two validated restriction-digestion options with shared downstream steps.

Specifications

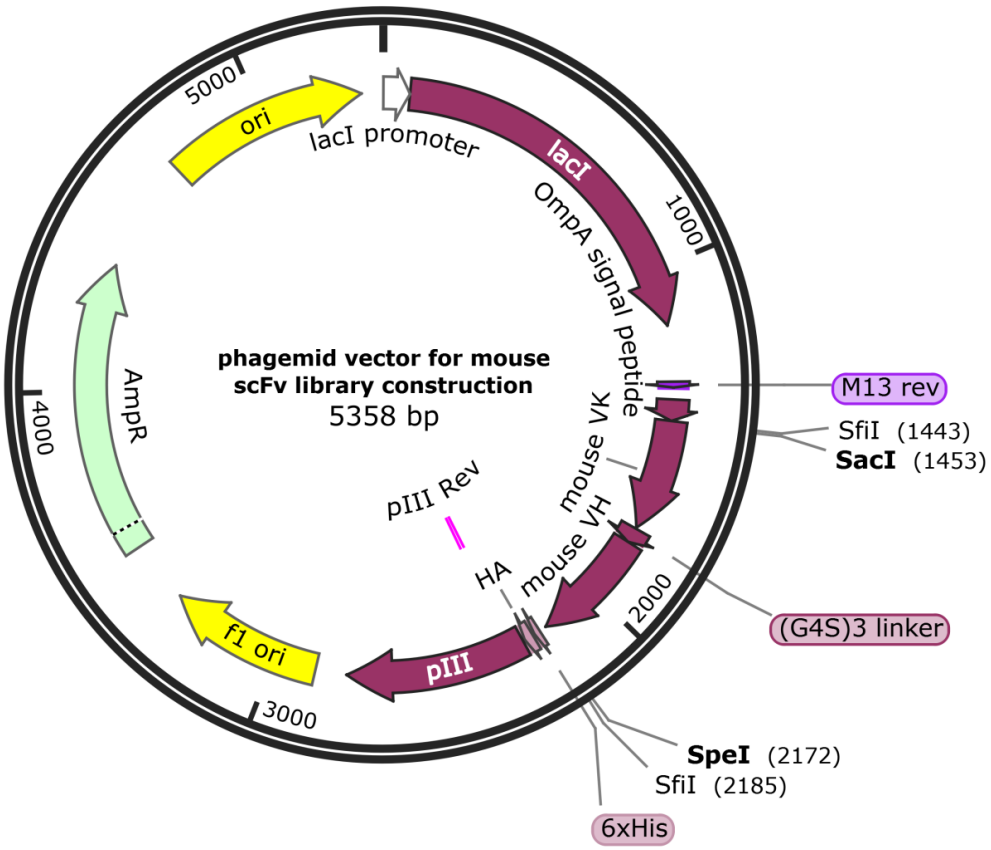
Property	Specification
Catalog number	APD-05
Vector	pAPD-m-scFv; 5,358 bp
Antibiotic resistance	Ampicillin (AmpR)
Expression	Inducible for downstream expression
Delivery	Transformation
Product type	Phage display / bacterial expression vector
Cloning methods	Method A: SacI (1453 bp) / SpeI (2172 bp); Method B: SfiI (1443 bp and 2185 bp)

Contents & Storage

Vial	Quantity	Component
1	100 µL, 10 µM	Primer mix (F+R) for mouse VL repertoire amplification
2	100 µL, 10 µM	Primer mix (F+R) for mouse VH repertoire amplification
3	100 µL, 10 µM	Assembly primers (F+R) for mouse scFv repertoire construction
4	10.0 µg	pAPD-m-scFv vector in Tris-EDTA buffer
5	100 µL, 10 µM	M13 Reverse forward sequencing primer
6	100 µL, 10 µM	pIII Reverse reverse sequencing primer

Storage: Store at -20°C. Primer sets and vector are guaranteed stable for 12 months when properly stored.

Vector for Library Construction



Phagemid vector for mouse scFv library construction — 5358 bp

Cloning Methods

Method A: SacI/SpeI restriction digestion. **Method B:** SfiI restriction digestion. Both methods use 10 µg DNA, the universal digestion buffer, and a 200 µL reaction volume for each separate insert or vector digestion.

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