APD-04 | Human scFv Phage Display Library Construction Kit

pAPD-h-scFv | Product Data Sheet

Product Overview

The Human scFv Phage Display Library Construction Kit (APD-04) provides primer sets and the pAPD-h-scFv phagemid vector for constructing human single-chain variable fragment (scFv) antibody libraries. Variable-region genes are amplified from cDNA derived from peripheral blood lymphocytes or lymphoid tissues of immunized or non-immunized donors.

Library Construction Workflow

1. Amplify human VH, Vκ and Vλ repertoires using the supplied PCR primer mixes.
2. Assemble VH with Vκ or Vλ repertoires by overlap-extension PCR.
3. Digest purified scFv repertoires and pAPD-h-scFv vector using SfiI.
4. Ligate the purified scFv inserts into the digested vector for library construction.

Key Features

Efficient scFv display: Supports expression and phage display of human scFv antibody fragments.

Versatile vector: Supports library construction and downstream antibody-fragment expression.

Specifications

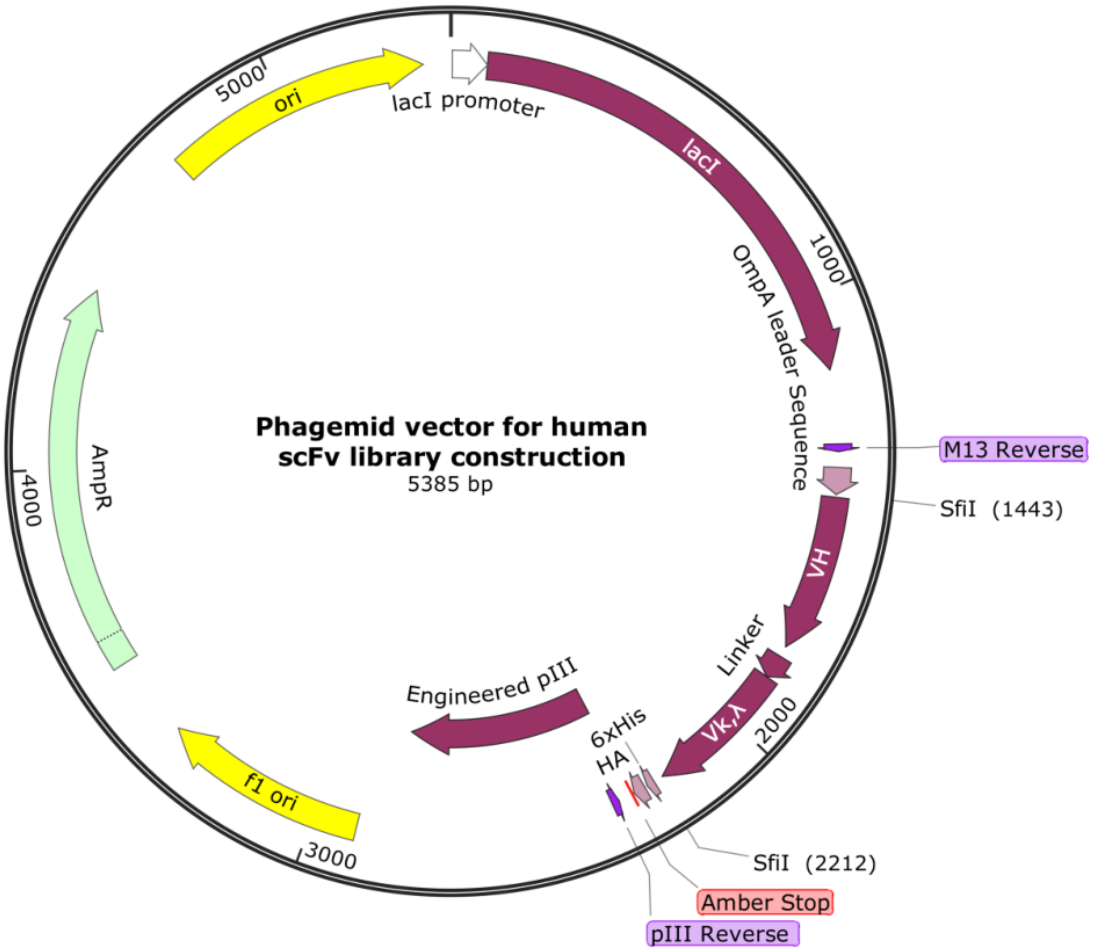
Specification	Value
Catalog number	APD-04
Vector	pAPD-h-scFv (5,385 bp)
Antibiotic resistance	Ampicillin (AmpR)
Expression	Inducible for downstream expression
Delivery	Transformation
Product type	Phage display / bacterial expression vector
Cloning method	SfiI (5′ and 3′ sites)

Contents & Storage

Vial	Quantity	Component
1	100 µL, 10 µM	Primer mix (F+R) for Vκ repertoire amplification
2	100 µL, 10 µM	Primer mix (F+R) for Vλ repertoire amplification
3	100 µL, 10 µM	Primer mix (F+R) for VH repertoire amplification
4	100 µL, 10 µM	Assembly primers (F+R) for scFv repertoire construction
5	10.0 µg (20 µL at 500 ng/µL)	pAPD-h-scFv vector in Tris-EDTA buffer
6	100 µL, 10 µM	M13 Reverse primer for forward sequencing
7	100 µL, 10 µM	pIII Reverse primer for reverse sequencing

Storage: −20°C. Primer sets and vectors are guaranteed stable for 12 months when properly stored.

Vector for Library Construction



Phagemid vector for human scFv library construction
5385 bp

The circular pAPD-h-scFv map identifies SfiI cloning sites at 1443 bp and 2212 bp.