



# Antibody Phage Display Library Construction Kit

pAPD-VHH: VHH phage display library construction kit

Catalog#: APD-08

## Product Overview

Fusion BioLabs offers a range of library primer sets and phagemid vector combination for antibody phage display and peptide phage display construction. With customizable features and robust performance, our primer sets and phagemid vectors are designed for facilitating phage display library generation as fast as within one week.

**pAPD-VHH** is a phagemid vector for construction of variable domain of the heavy chain of a heavy chain only antibody (VHH) library. Here are the key steps involved in constructing such a library:

- Amplify VHH-hinge repertoires from cDNA reverse transcript from RNA isolated from peripheral blood lymphocytes (PBL) or lymphoid tissue of non-immunized or immunized donors using PCR Primer Set 1.
- Amplify VHH repertoires using Primer Set 2.
- Restriction enzyme digestion **pAPD-VHH** vector and VHH repertoires obtained from primer set 2 with SfiI.
- Ligation of digested and purified VHH repertoires into digested and purified **pAPD-VHH** vector to make VHH libraries.

## Key Features

**High expression efficiency:** Engineered for efficient expression and display of antibody fragment Fab on the surface, allowing for easy screening and selection of target molecules.

**Flexibility and versatility:** One vector for both antibody library construction and downstream antibody fragment expression. No need subcloning into expression vector for downstream application.

## Specifications

Antibiotic Resistance	Ampicillin (Amp <sup>R</sup> )
Constitutive or Inducible System	Inducible for downstream expression
Delivery Type	Transformation
Product Type	Bacterial Expression Vector
Cloning Method	Restriction Enzyme SfiI

## Contents & Storage

Primer Set 1		
Vial 1	200 µl, 10 µM	Forward and reverse primer mix for VHH-hinge fragment amplification
Primer Set 2		



Vial 2	200 $\mu$ l, 10 $\mu$ M	Forward and reverse primer mix for VHH fragment amplification
pAPD-VHH cloning vector for phage display VHH library construction		
Vial 3	10.0 $\mu$ g in Tris-EDTA buffer	

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

### Vector for library Construction

