# Antibody Library Screening

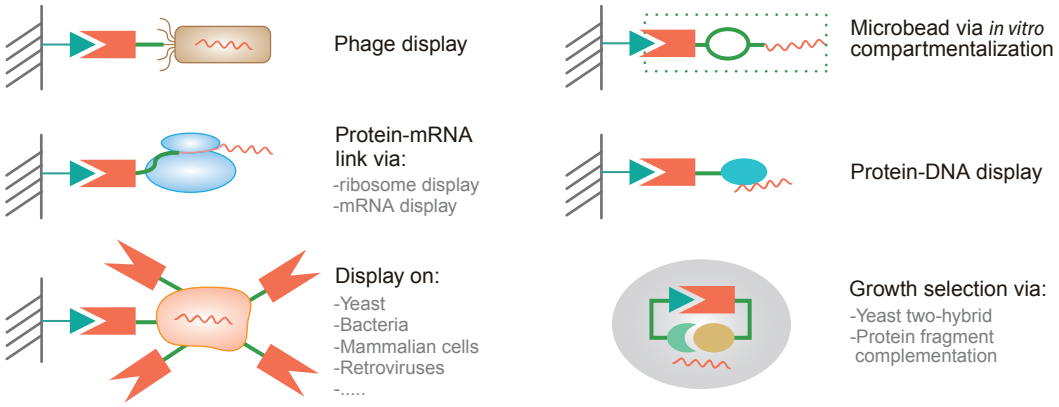
Antibodies can be isolated from recombinant antibody libraries in lab. Using one of these platforms for selection that in essence mimics *in vivo* process.

To carry out the selections from display libraries, many different methods and experimental approaches have been developed to separate clones that bind from those that do not. According to the properties of the phases that hold the specific antigens, these selection methods can be classified into solid-phase, solution-sorting, cell-based and *in vitro*-based screening. Elution conditions can also be used to drive the selection towards the desired population, for example, via trypsin-digestion of a proteolytically sensitive phage, via mild disulfide-bridge reduction to release phage or both antigen and phage, or via competitive elution with a ligand binding to the antigen and displacing the relevant phage antibody.

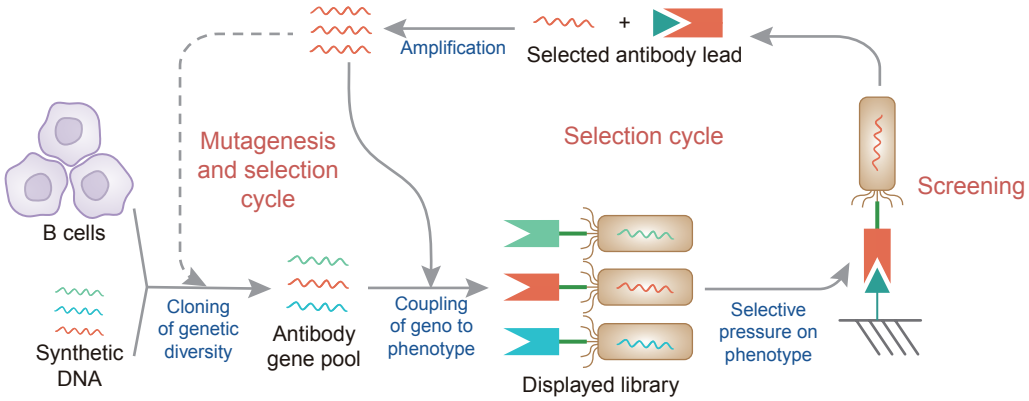
Most of the platforms for antibody selection and screening share four key steps with the procedure for antibody generation in the *in vivo* immune system: First, antibody diversity is generated from synthetic V genes or cloned from B cells. Next, antibody phenotype is coupled to its genotype via a phenotype-genotype link packaged in a host (shown here schematically for phage display). As a result, each host particle expresses a unique antibody on its surface. The repertoire of antibodies displayed on these host particles is subjected to the process is repeated and eventually antibodies binding to antigen are confirmed by screening.

**Creative Biolabs Phage Display Library Screening Services**

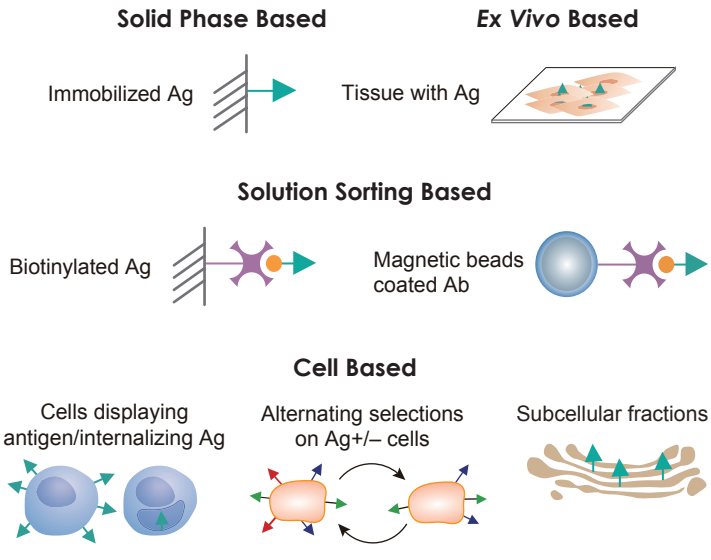
## 1 Platforms for antibody display and selection



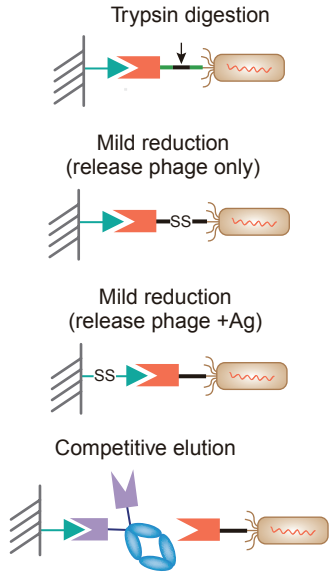

## 2 Steps in antibody selection and screening




## 3 Antigen presenting strategies




## 4 Eluting strategies




## What we do:

### Phage Display Library Construction

- Immune Antibody Library
- Scaffold Library
- Constrained Peptide Library
- cDNA Library
- Genome Library

### Phage Display Library Screening

- Solid-Phase Screening
- Solution-Sorting Screening
- Cell-Based Screening
- *In Vivo* Screening
- *Ex Vivo* Screening