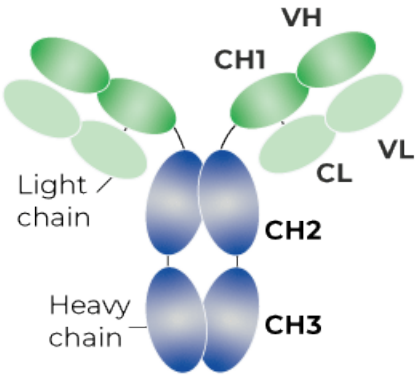
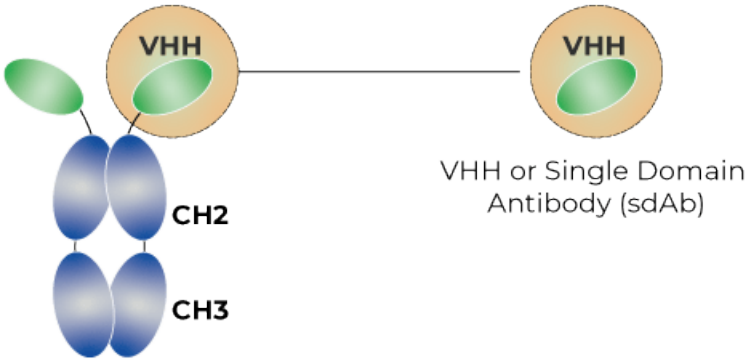
Single Domain Antibody Development



Conventional Antibody



Camelid Heavy Chain Antibody

The Single Doman Antibody (sdAb) from camelids, also known as VHH antibodies, provides cutting-edge antibody technology. The sdAb lacks light chains and is smaller and more stable than conventional antibodies yet possesses fully functional antigen-binding capability. Due to its size (a mere 15 kDa), a single domain antibody is adept at reaching otherwise inaccessible epitopes.

Features of Single-Domain Antibodies

- Smallest functional antibody unit at ~15 kDa
- Unique binding capacity to conformational epitopes and active sites
- More stable than conventional antibodies under extreme temperature and pH
- Recombinantly produced for lot-to-lot reproducibility
- Adaptable through antibody engineering

Advantages of Partnering with ProSci

- 25+ years developing antibodies
- 20,000+ custom antibodies developed
- Customizable services tailored to your needs
- ProSci conducts sdAb R&D of therapeutics, develops and marketins sdAb products, and provides custom sdAb services

Explore ProSci Single Domain Antibody Development Services

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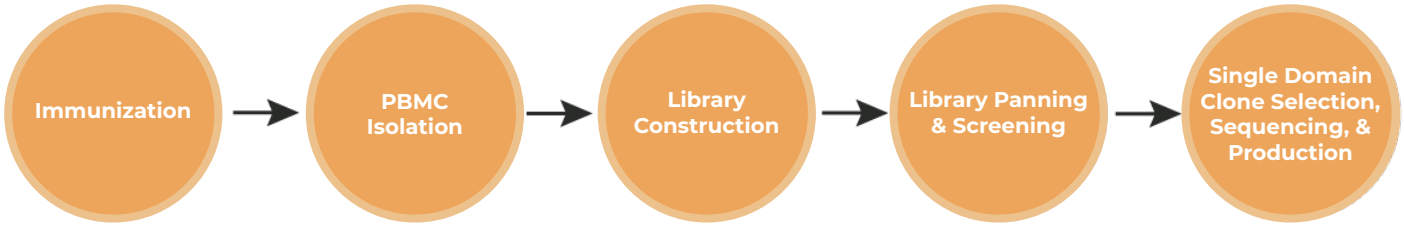
Single Domain Antibody Development Process



Single Domain Antibody Development Packages

Premier

Immunization through Library Construction

- **Phase I: Immunization**
  - 1 Llama or alpaca
  - 1 Pre-immune serum collection
  - 4 Immunizations
  - 3 Test serum collections
  - ELISAs on each bleed
- **Phase II: PBMC Isolation**
  - PBMC isolation from week 8 and 12 bleeds
- **Phase III: cDNA Library Construction**
  - sdAb library construction of Phase 2 PBMCs

Deliverables

sdAb library as glycerol stock of phage plasmid-containing bacteria

Pro

Immunization through Final Clones

- **Phase I: Immunization**
  - 1 Llama or alpaca
  - 1 Pre-immune serum collection
  - 4 Immunizations
  - 3 Test serum collections
  - ELISAs on each bleed
- **Phase II: PBMC Isolation**
  - PBMC isolation from week 8 and 12 bleeds
- **Phase III: cDNA Library Construction**
  - sdAb library construction
- **Phase IV: Library Panning and Screening**
  - 2 rounds of panning
  - ELISA screening
- **Phase V: Single Domain Clone Selection, Sequencing & Production**
  - Selection and sequencing of binders
  - Small-scale antibody production

Deliverables

Amino acid sequences of binders
Purified antibody from up to 6 final clones
DNA sequences and final clones

Need Something Different?
We can customize any package!

Contact Us

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