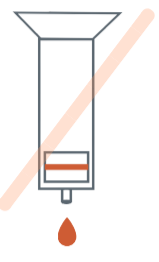


Optimized VHH Clone Selection

Affinity and titer before purification



Eliminate the need for purification when working with VHH.



Avoid His- or other tags. Work with native proteins.

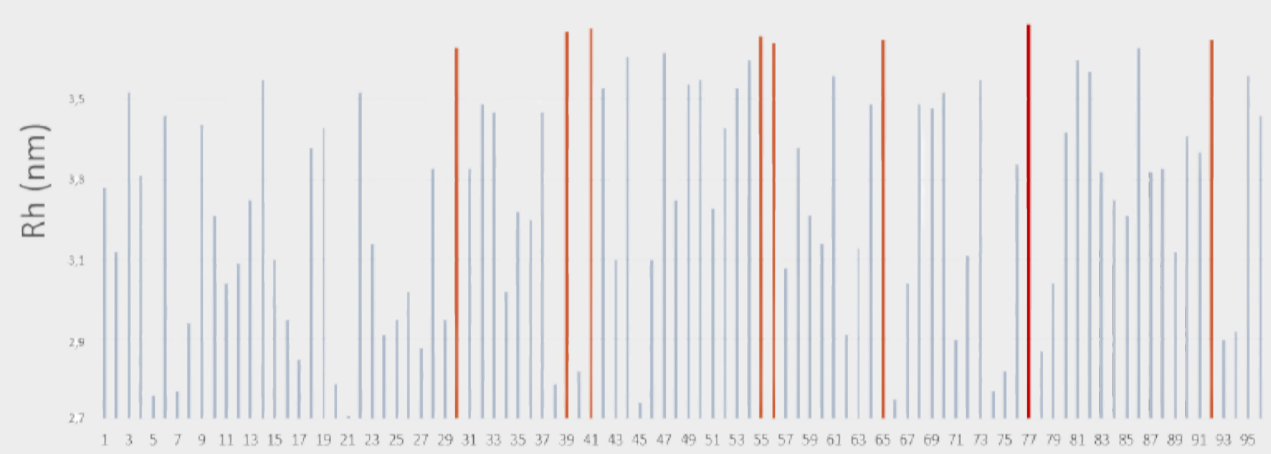


Include protein functional performance (Kd) **early** in the selection process to select the best candidates. Avoid unnecessary expression & purification of poorly performing clones.

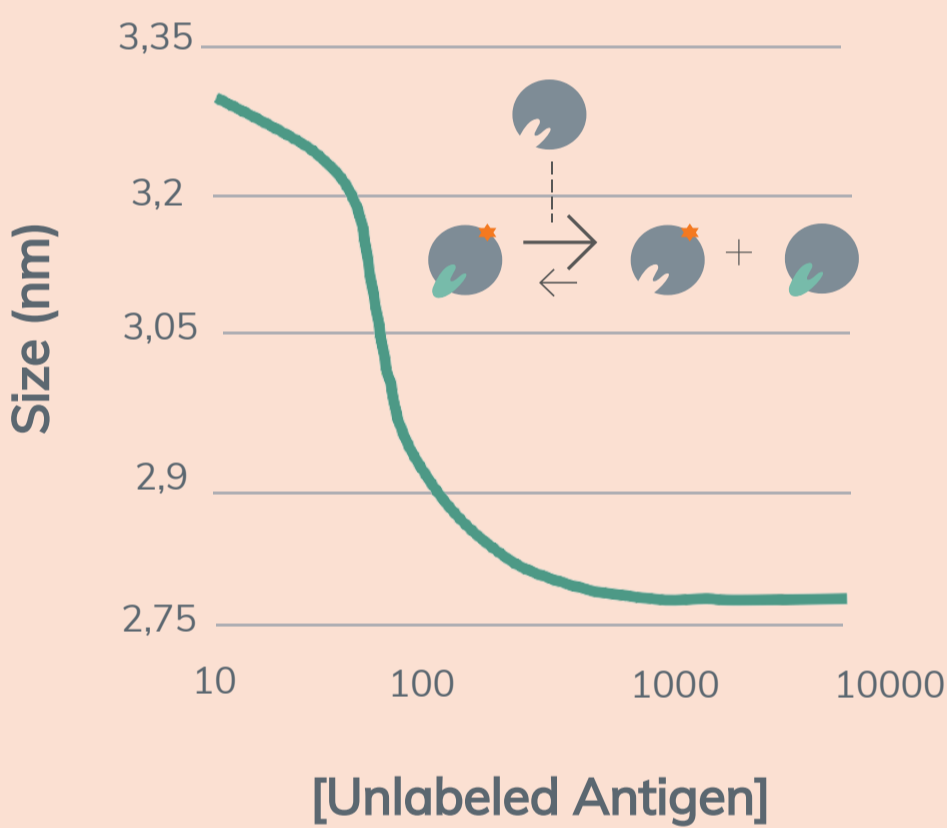
Fidabio Clone Selection

1 Single point size-ranking of VHH clones

The Fida 1 size measurement is determined by expression levels and affinity **combined**. The red clones on the right represent the eight highest read-outs which are selected for Step 2.



Single point size-ranking of VHH clones

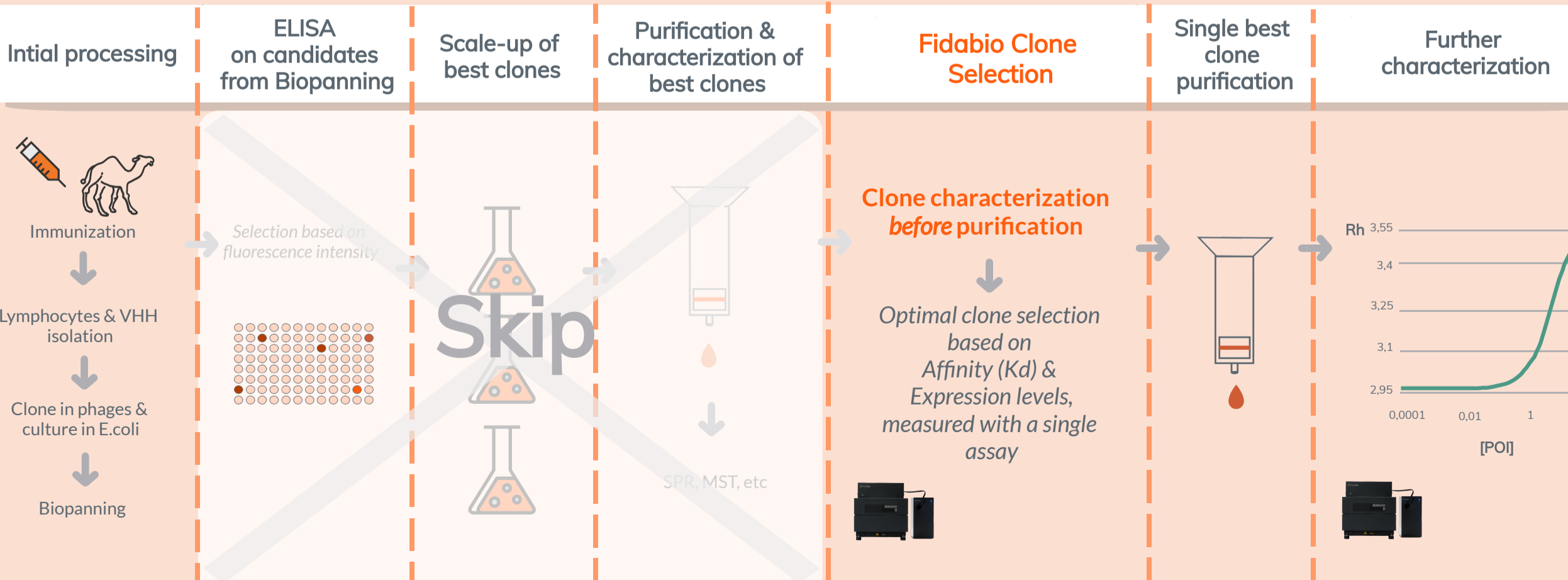
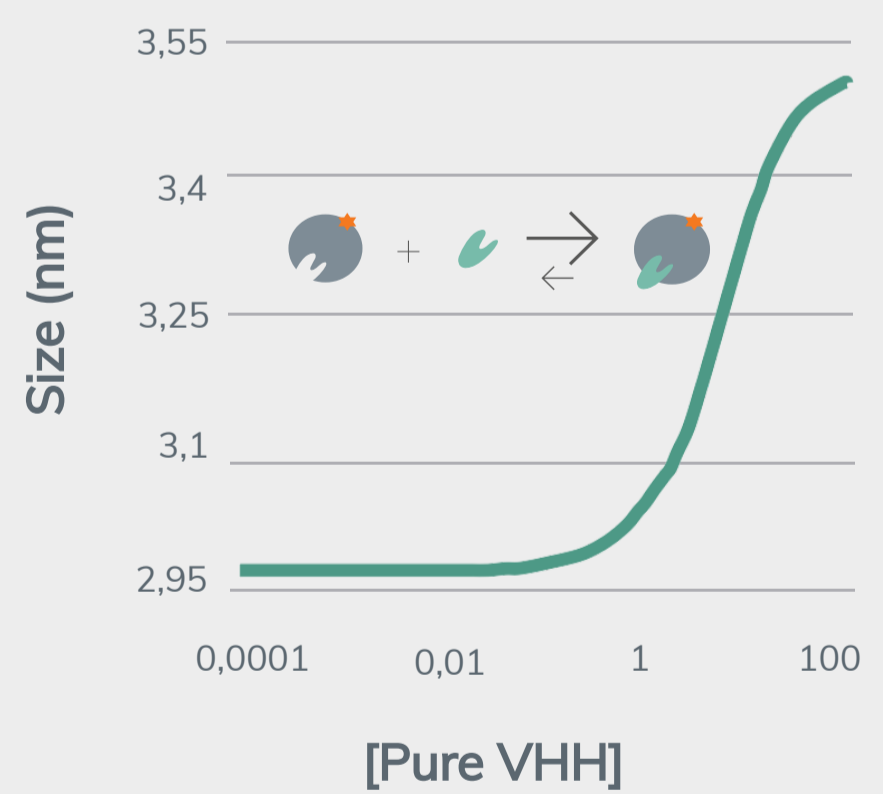


2 Competitive assay on selected clones

Titrating unlabelled antigen into a mixture of **unpurified** VHH solution and labelled antigen decreases size until the minimum value where all the labeled antigen is free. Size is linked to the fraction of VHH bound, therefore, the **affinity** and the **expression level** of VHH are assessed **simultaneously**.

3 Detailed characterization of best VHH clone(s)

Clone(s) with the best combination of affinity and expression level are produced in larger scale, purified and further characterized.



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