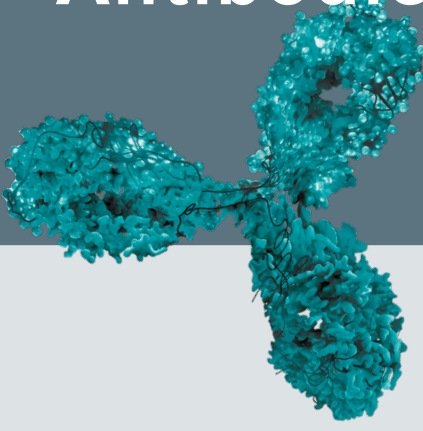
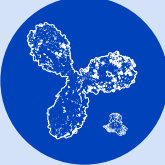
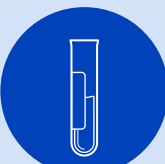
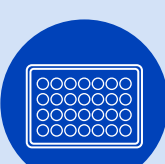


Why Researchers Are Switching to Synthetic Alternatives in Affinity Assays

Antibodies	vs. Single SOMAmer™ Reagents	Benefits for Your Assay
		
Large (approximately 150 kDa), typically bivalent proteins that bind linear or three-dimensional epitopes	Small (approximately 8–20 kDa), monovalent DNA aptamers that bind three-dimensional epitopes	 Access hidden or crowded epitopes
No universal solution to reduce nonspecific binding	Blocks transient, nonspecific interactions with polyanionic competitor	 Specific interactions in complex samples
Top performers are limited to immunogenic surface-exposed antigens	Can bind non-immunogenic, hidden or post-translationally modified targets	 Detect previously undetectable targets and variants
Often requires animal use for development and production	100% <i>in vitro</i> – no animals used	 An ethical and sustainable reagent source
Sensitive to temperature and prone to degradation over time	Stable and less sensitive to freeze-thaw cycles	 Highly reproducible results, including long-term projects
Biologically produced (for example, animal immunization, cell culture)	Fully synthetic	 Exceptional batch-to-batch consistency
Expensive and slow to develop new clones or batches	Readily available with consistent supply	 Reduced lead time and simplified procurement
Standard for ELISAs, pull-downs, etc.	Compatible with ELISAs, pull-downs, etc.	 Easily integrate into existing affinity-based protocols
Limited to well-characterized immunogenic targets with commercial demand	Covers approximately 11,000 targets – about half the human proteome – including many not accessible with antibodies	 Detect previously inaccessible or underserved protein targets, including rare and low-abundance proteins
Variable affinity; often unknown	Low or sub-nM affinity, slow dissociation off-rate	 Sensitive and specific interactions, including with low-abundance proteins