



Your Partner for Antibody Discovery and Optimization

PARTNERING

Partners include major pharma, biotech,
diagnostic and government entities

Services competitively priced

Technology transfer packages available

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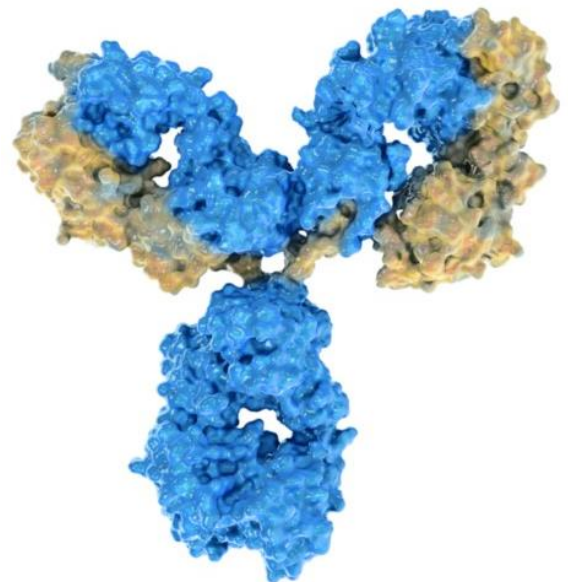
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**Proprietary
Yeast Display Platform
Exceptional Results**

Therapeutic

Diagnostic

Research



AVANTGEN TECHNOLOGY PLATFORM OVERVIEW

- **Proprietary Yeast Display System**
 - Robust and high copy number display of human IgG, Fab or other antibody fragments
 - Enabled by proprietary peptide display motif fused to constant region of heavy chain
 - Stable system can be amplified without loss of diversity
 - FAC-based techniques allow multi-parameter selections
- **Large Human Antibody Library and Sequence Database**
 - Over 100 billion clones (75 sub-libraries)
 - Rationally designed to mimic diversity in human antibody database
 - Human antibody database compiled from >500 diverse individuals
- **Rapid Discovery of Human Antibodies**
 - High affinity (sub-nM to nM) and high specificity (single point mutation specificity)
 - High developability: High thermostability (T_m in 80-90°C), lack of sequence liability, low immunogenicity, high expression yield.
 - High diversity: 10s-100s clones
- **Rapid Affinity Maturation and Optimization**
 - Mimics natural sequences observed for antibodies derived from those variable region genes
 - 10 to 1000-fold affinity improvement readily achieved
 - CDR grafting with minimum back-mutation to retain affinity for humanization
- **Novel Rabbit Monoclonal Antibody Discovery**
 - Optimized rabbit immunization protocol
 - Affinities in the low pM range
 - High affinity: differentiation between subtle variations
 - Well suited for immunodiagnostic, research tool (IHC, flow, etc.), anti-idiotypic antibody for PK studies

TIMELINE

Project	Method/Goal	Timeline
Novel Yeast Display Fully Human Antibody Discovery	Antigen-specific	2 months
	Antigen- and epitope-specific (i.e. blocking antibody)	2-3 months
Antibody Humanization	CDR grafting	2 months
	Epitope-guided selection of CDR-H3 focused library	2-3 months
Affinity Maturation and Optimization	Affinity improvement: 10 to 1,000-fold Fine turning specificity	2-3 months
Novel Rabbit Monoclonal Antibody Discovery	Immunization, yeast display library construction and screening Differentiate between subtle structural variations	4-5 months

 **Novel NK cell engager platform available for partnership and licensing**

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