

Antibodies by Design

A Division of MorphoSys AG

Rapid Generation of Monoclonal Antibodies for Research

- 15 billion unique, functional antibody specificities available for screening
- Purified antibody protein is ready for shipment in just 8 weeks
- More than 3000 monoclonal antibodies from 600 antigens in less than 2 years
- High throughput antigen expression with HuCAL[®]-EST technology
- Success rate >90% for standard antigens
- Antibodies available in different formats (e.g., monovalent or bivalent Fab, addition of peptide tags, fusion to enzymes)

Throughput of Antibody Generation

— Panning on up to 96 Antigens in Parallel

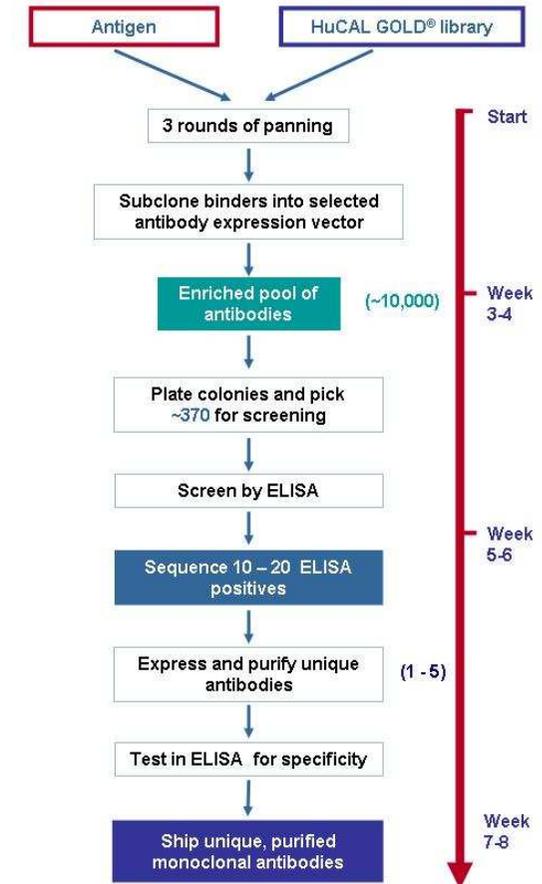
- Covalent coupling on magnetic beads
- Panning on robotic system in solution
- Driven by LIM software (sample tracking, scheduling for robots)

— Analysis of Enriched Clones

- Automated picking from agar plates into 384 well plates, growth, expression, chemical lysis
- Screening using standard indirect ELISA or homogeneous assay system (FLISA)
- Automated hit-picking, data and clone storage

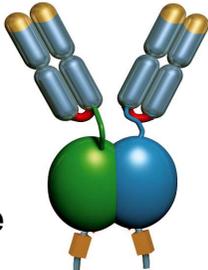
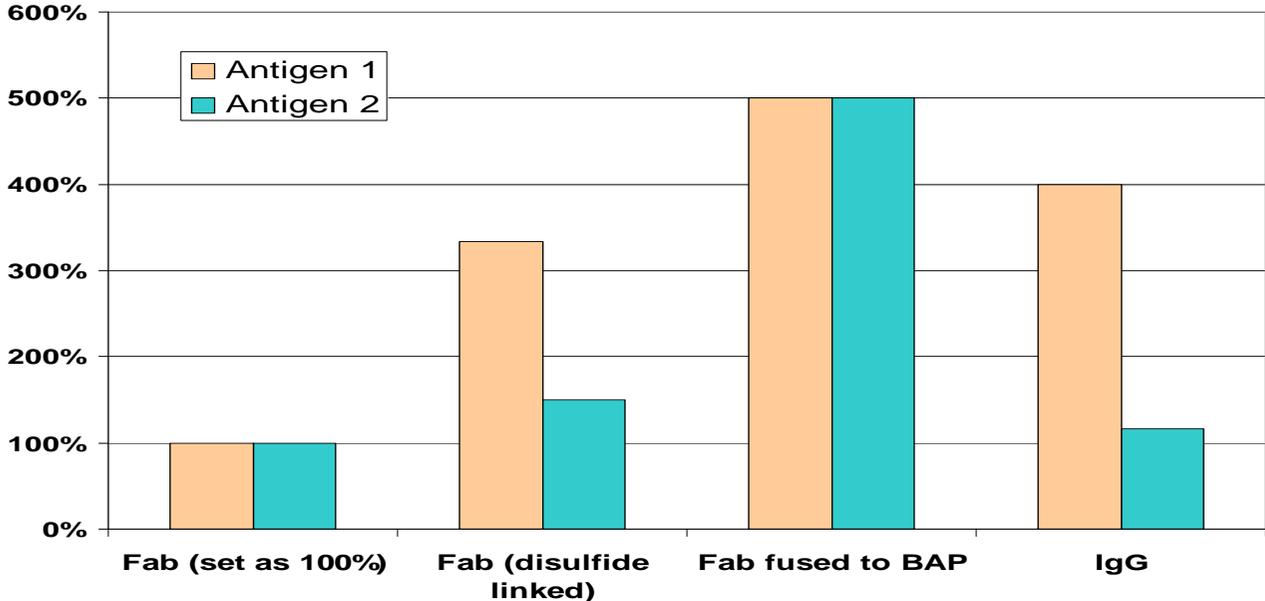
— Expression and Purification

- E. coli production
- 25 ml (250 ml) starting cultures
- Purification in 96 well plates
- One-step affinity chromatography



Engineered Antibody Formats Improve Chip Immobilization

2 antibodies tested in 4 different formats on glass slide

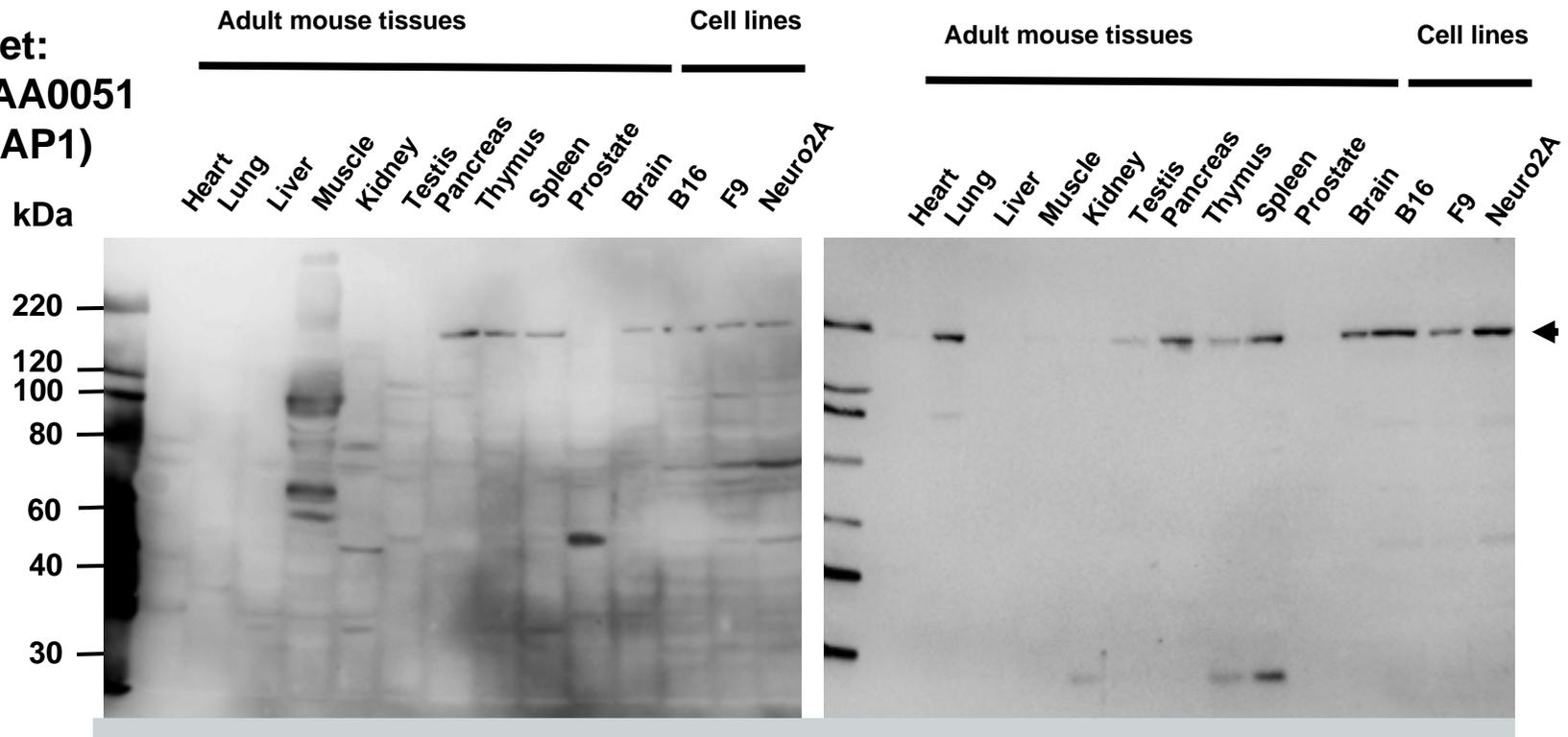


HuCAL[®] antibodies were immobilized on chip surface

Detection was with labeled antigen

Western Blot: Comparison with pAb

Target:
mKIAA0051
(IQGAP1)



Rabbit polyclonal ab

HuCAL® ab AbyD01260

AbyD01260 was generated against a fragment of mKIAA0051 expressed as GST fusion protein

Courtesy by Dr. H. Koga, Kazusa DNA Research Institute, Kisarazu, Japan

Summary



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- **Fast Generation:**
Currently 8 weeks from start to shipment of purified monoclonal antibodies
- **High Throughput:**
For both antibody generation and production
- **Guided Selection:**
Antibody properties can be pre-determined by applying appropriate selection protocols
- **High Specificity, Affinity and Stability**
- **Purified protein from up to 5 unique antibodies**
Cost: US\$ 5,000 to 8,000 per antigen, depending on throughput
- **No Antibody – No Charge Guarantee**



www.A-By-D.com

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