Binding Techniques Cheat Sheet



Co-IPs

Advantages:

- Inexpensive and relatively easy to perform
- Specific
- Compatible with further analysis

Disadvantages:

- No detection of weak signals
- Based on a prediction of interaction
- No real-time data

MST

Advantages:

- Immobilization-free
- Ability to measure complex samples
- Wide range of interactants
- Low sample consumption

Disadvantages:

- Requires fluorescent labels
- No kinetic data
- No concentration analysis
- Fluorescent intensity must fall within optimal range

ITC

Advantages:

- Direct determination of KD
- No tagging or immobilization
- Provides stoichiometry and thermodynamic parameters
- Can be used with organelles and cells

Disadvantages:

- High sample volume
- Complicated evaluation
- Time consuming

BLI

Advantages: • Label-free

- "Dip and read" offers advantages over complex systems
- High-throughput

Disadvantages:

- Can have data reproducibility issues
- Less sensitive in small molecule interactions
- Medium sample volume
- Costly consumables

SPR

Advantages:

- Label-free
- 1-2 hours for full kinetics experiment
- Low sample consumption

Disadvantages:

- Can be difficult to operate
- Susceptible to mechanical noise
- High-throughput instruments are costly

LSPR

Advantages:

- Benchtop
- Real-time data
- **User-friendly**
- Low-maintenance



Learn more about benchtop SPR!









