

Protein Barcoding: Multiplexed Screening for High-efficiency Pre-clinical Studies

Accelerate decisions and reduce costs with up to 24× the analytical power

Protein barcoding makes the pre-clinical drug development process more efficient and cost-effective through multiplexed protein screening, to accelerate the path to first in human trials.



Direct protein detection: Quantify expression and differentiate functional performance of proteins



Multiplexing power: Test multiple candidates in a single model organism with **up to 24×** the power of single-plex analysis



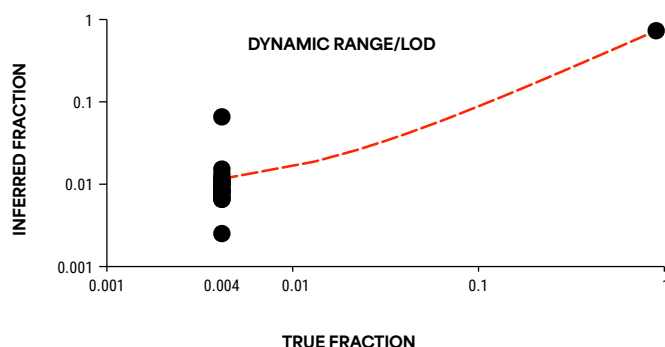
Cost-effectiveness: Reduce pre-clinical animal model expenses by **>95%** with 24-plex



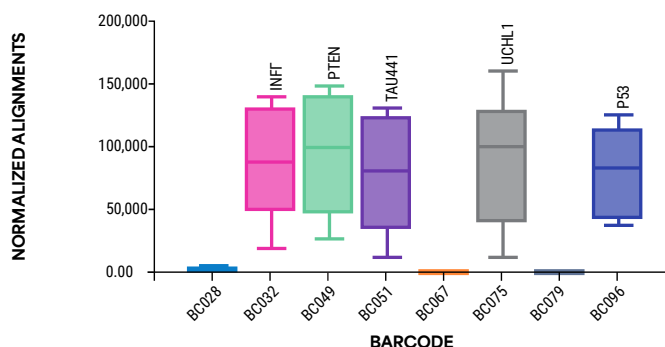
Analytical validity: Detect low-abundance proteins down to **5 pmol** and differentiate expression changes across a 120-fold dynamic range on a half chip or 240-fold on a full chip

Platinum Pro®: Driving Precision in Protein Barcoding

Efficient translation, extraction, and quantification in one platform



Protein barcoding offers up to 240-fold dynamic range from as low as 25 pmol total protein input

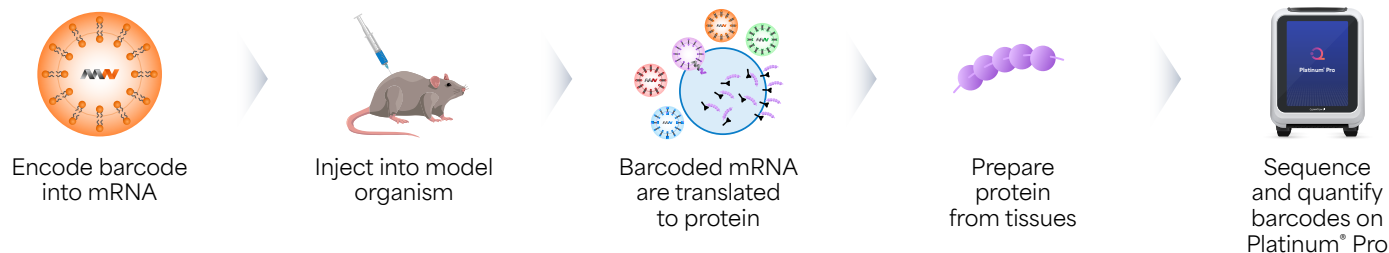


Five proteins expressed in *E. coli*, demonstrating that barcodes can accurately recover relative abundances in a mixture of full-length proteins; barcode presence did not impede expression



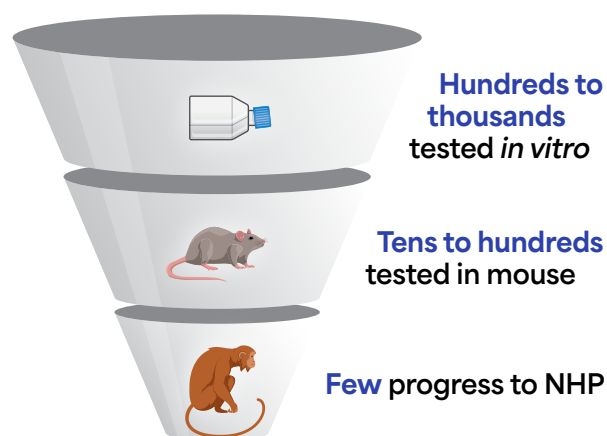
← See full analytical validation in our recent preprint publication

How It Works



Typical Study Size

Candidates screened/phase



Now, with the multiplexing power of barcoding, affordably increase:

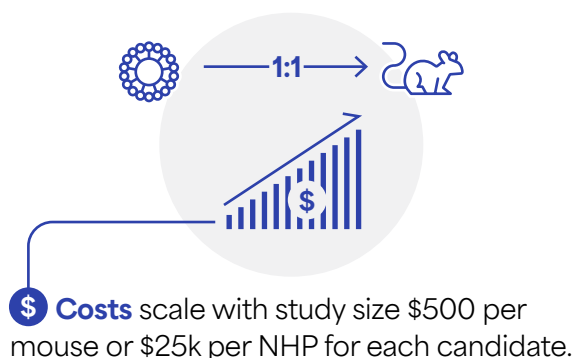
- Candidates screened
- Replicates tested
- Statistical power of studies
- Confidence in results

Study delivery and translation in a single assay with Platinum Pro

Maximize Candidates Screened and Save Resources

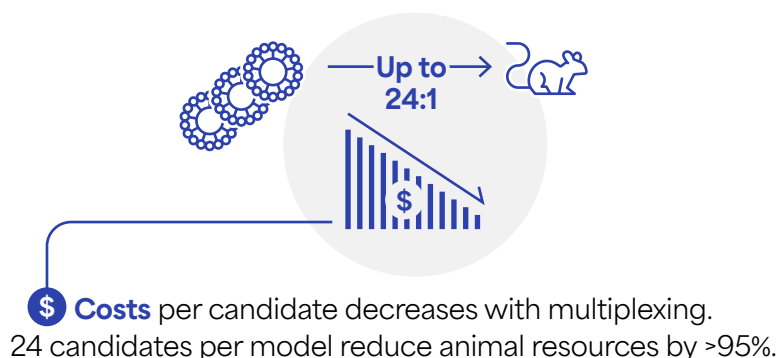
Traditional Screening

One candidate per animal



Multiplex Screening

Multiple candidates per animal



Cost estimates are for informational purposes only and based on general assumptions. Actual savings will vary due to factors such as workflow, experiment scale, reagent costs, labor, pricing structures, equipment depreciation, and compliance requirements. Quantum-Si does not guarantee specific cost reductions or financial outcomes. Customers should conduct their own cost analysis based on their unique operations.