

Expand your studies across multiple omes with NGS-based proteomics

The Illumina Protein Prep solution combines proteomics with NGS readout to analyze the proteome with unprecedented speed and scalability, enabling high-throughput proteomics discovery



Why proteomics?

Proteins play a functional role in human biology, reflecting a real-time snapshot into health states. Because of their close proximity to the expressed phenotypes, proteins can be useful and relevant to understanding a wide group of diseases and drug mechanisms.

Dynamic

The dynamic nature of protein expression explains how the phenotype changes in response to various conditions.

Functional

Proteins are the primary target of nearly all drugs currently in development.¹

Introducing Illumina Protein Prep, an NGS-based proteomics solution combining SOMAmer Reagents with trusted Illumina sequencing and analysis.



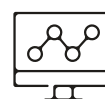
Prepare libraries

Automated SOMAmer Reagent-based proteomics assay and Illumina library preparation



Sequence

Scalable sequencing with the NovaSeq™ 6000 and NovaSeq X Systems



Analyze data

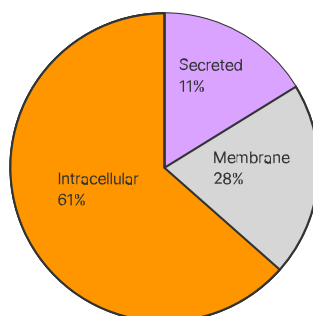
Integrated proteomic data analysis using DRAGEN™ pipelines and Illumina Connected Multiomics

The Illumina Protein Prep solution is highly specific, reproducible, and reliable.

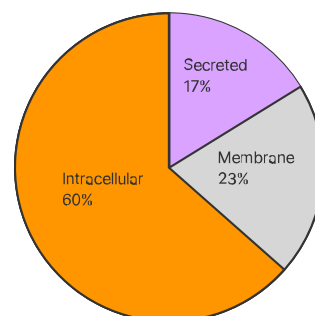
Comprehensive coverage

The Illumina Protein Prep solution targets 9.5K unique human proteins, providing extensive coverage of the human proteome with high proportionality with the protein content included in the Human Protein Atlas.

Human proteome



Illumina Protein Prep



Rigorous validation

Illumina Protein Prep includes the largest orthogonally validated NGS-based panel on the market, with > 72% SOMAmer Reagents having at least one additional form of orthogonal validation.

SOMAmer Reagent validation

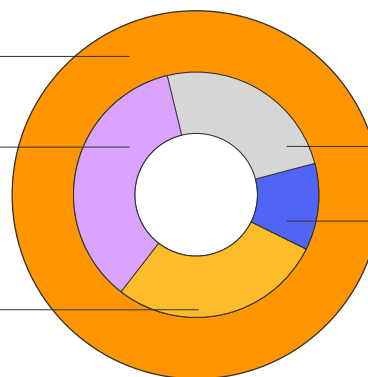
Primary validation: 100%

One additional validation: 41%

Two additional validations: 22%

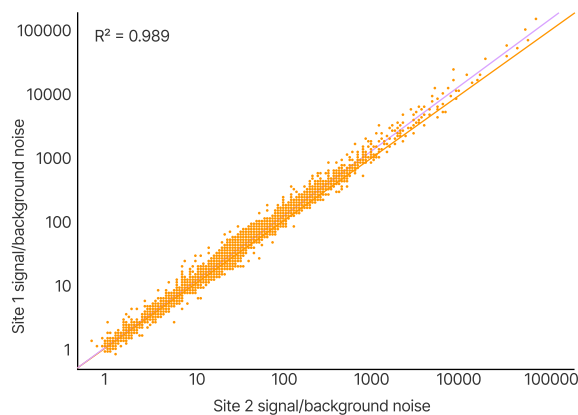
In process

≥Three additional validations: 10%



Reliable and highly reproducible data

The scatter plot shows high correlation of signal to background noise between test sites when automating the Illumina Protein Prep solution, contributing to lower batch-to-batch variability typically associated with an aptamer-based approach.



Visit us at
illumina.com/proteinprep
to learn more