



# Discovery proteomics for deep coverage and high throughput.

Sapient is a biomarker discovery organization providing **high throughput discovery proteomics services to measure thousands of proteins** in blood and tissue.

Leveraging state-of-the-art mass spectrometry, our methods **achieve high analytical specificity while optimizing for protein coverage and throughput** to best suit your bioanalytical needs.

## Mass spectrometry **measure of proteins and proteoforms.**

Our mass spectrometry approach annotates proteins and post-translational modifications (PTMs) via direct peptide sequencing. **Peptide-level information** enables precise protein identification, and **capture of PTMs** allows for more in-depth analysis of protein function and regulation.

The additional value is that Sapient's discovery proteomics services are scalable. **Choose the coverage depth and throughput** that aligns with your specific study objectives.



### Our approaches

#### Sapient **/HT/** Discovery

Captures **2,000+** proteins and PTMs in plasma and **6,000+** in cells. The fastest throughput for **large, population-scale studies and cell-based screening.**

#### Sapient **/Core/** Discovery

Measures **5,400+** proteins and PTMs in plasma, across tens to 10,000+ samples. Optimized for **revealing biological insights from the proteome.**

#### Sapient **/Deep/** Discovery

Assays **12,000+** proteins and PTMs in cells and tissue. Ideal for **cell and tissue-based studies when the deepest proteome coverage** is required.



# High-Throughput Profiling

with next-gen analytical technologies

Sapient's discovery proteomics method uses **nanoLC coupled to trapped ion mobility mass spectrometry and nanoparticle enrichment** to measure thousands of proteins across diverse bioanalytical pathways.



## Scalable breadth & depth of coverage

of proteins across the blood and tissue proteome, including PTMs such as phosphorylation, acetylation, methylation & ubiquitination



## Applicable to liquid & tissue matrices

including from preclinical and clinical systems



## Measure of biologically important proteins

including exosomal and membrane-bound proteins

# Biocomputational Analysis

with multi-omics data integration

Our data science team can provide **integrative analysis of proteomics data** with other omics, preclinical, and clinical data to elucidate protein biomarkers and their involvement in processes underlying disease and drug response.



## Expert handling of large-scale datasets

using advanced statistical & machine learning models



## Identification of key protein biomarkers

with mapping of phenotype & genotype associations

The biomarkers we discover for sponsors can be applied to align:

## Right Disease

- Target ID and validation
- Disease mechanisms
- Early disease detection
- Disease progression

## Right Patient

- Patient stratification
- Safety profiling
- Companion diagnostics
- Clinical trial enrichment

## Right Therapy

- Dosing strategies
- Timing of treatments
- Target engagement
- Toxicology



**CAP**  
ACCREDITED  
COLLEGE of AMERICAN PATHOLOGISTS

Your partner to **discover more and develop faster.**

We are here to **extend multi-omics insights for your drug development programs beyond the genome**, to dynamic protein, metabolite, and lipid biomarkers that elucidate factors modulating health, disease, and drug response.

  
**SAPIENT**

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**Ready to discover more?**

Schedule a time to discuss your programs with our scientists.

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