

Technology Introduction

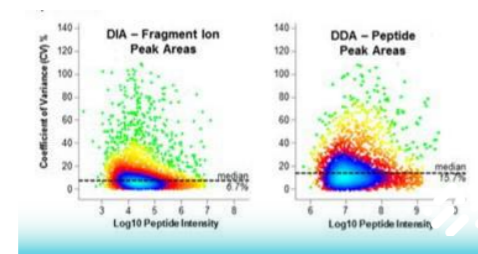
Data-independent acquisition (DIA) is a holographic mode of mass spectrometry data acquisition based on electrostatic field orbitrap. Compared to data-dependent acquisition (DDA), DIA has the advantages of panoramic scanning, deeper data coverage, high data reproducibility and accurate quantification. DIA allows independent analysis of each clinical sample within large-cohort research, and it can retain the integrity of sample information for essential data analysis.

INOMIXO is a leading omics service provider with decades of experience in the field of proteomics. Based on the advanced analytics platform, we have developed state-of-the-art technologies and methods to provide high-quality protein analysis solutions for researchers worldwide.

Technical Features

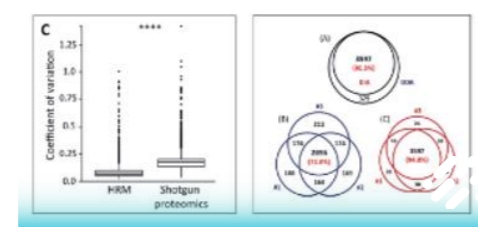
Panoramic scanning

- ▶ Data-independent acquisition mode, significantly reducing high-abundance interference.
- ▶ Fragmentation ion information of all parent ions can be collected for protein identification and quantification, the data coverage has increased significantly.



Higher integrity and reproducibility of protein data

- ▶ The repeatability of large-cohort sample identification has increased by 40%.



Accurate quantification

- ▶ The quantitative capability approaches the gold standard SRM/MRM targeted technology.

Application Areas



Clinical disease
biomarker screening

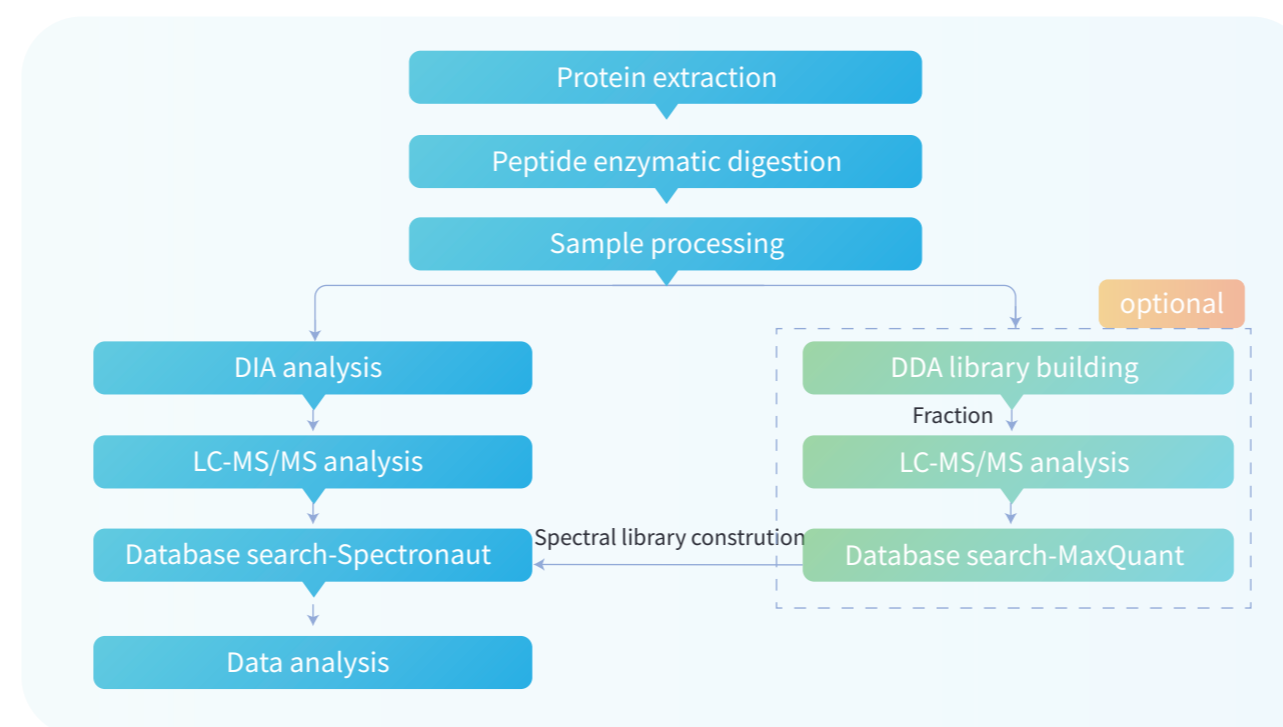


Tumor molecular
subtyping



Plant growth and
development research

Project Workflow



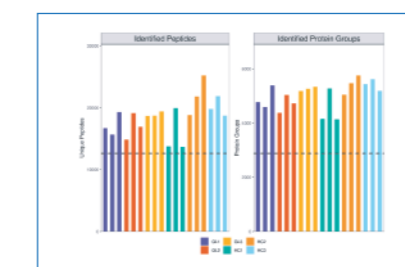
Sample Requirements

Sample type	sample	Recommended
Body fluid	Plasma, serum	0.05~0.2 mL
	Urine	50~100 mL
Body fluid	Cerebrospinal fluid, synovial fluid, ascites.....	0.05-5 mL
	Animal or human milk	2-50 mL
Animal tissue	Brain, heart, liver, spleen, lungs, kidneys, muscles, skin, or other tissues	15 mg~2 g
Plant tissue	Soft tissues of woody and herbaceous plants	50 mg~2 g
Cells	Cells	0.5 × 10 ⁷ ~1 × 10 ⁷
Special sample	FFPE	5-10 μm thick, 50 mm ² size, ≥10 slices
	Biopsy or puncture tissue	1-3 needles, visible to the naked eye, the size of millet grains

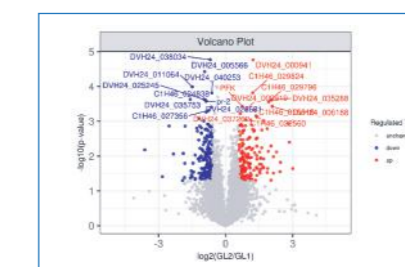
- ★ Please ensure proper pre-processing and storage methods for the samples.
- ★ Please feel free to contact us if you have any questions regarding the samples.



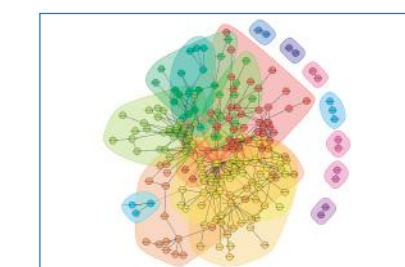
Analysis Content Display



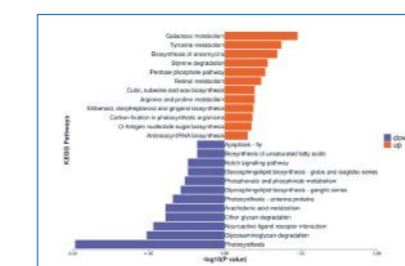
Protein and peptides identification
Column chart



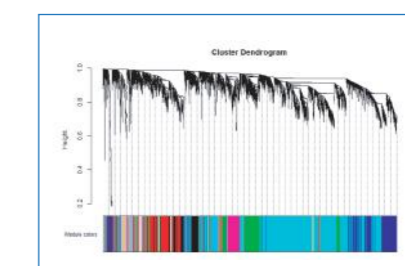
Differential protein expression
Volcano plot



Protein-protein interaction
Module analysis



KEGG butterfly map



WGCNA
co-expression module



WGCNA
module-phenotype correlation

Our Advanced Platform



Thermo Q Exactive™
HF-X

Thermo Qbitrap
Exploris™ 480

Thermo Orbitrap
Astral™

Bruker TimsTOF
Pro2

Selected Publications

Year	Journal	Paper
2023	British Journal of Pharmacology	Icariside II preconditioning evokes robust neuroprotection against ischaemic stroke, by targeting Nrf2 and the OXPPOS/NF-κB/ferroptosis pathway
2023	European Journal of Pharmacology	Melatonin ameliorates atherosclerosis by suppressing S100a9-mediated vascular inflammation
2022	Frontiers in Oncology	Molecular Markers of MDR of Chemotherapy for HSCC: Proteomic Screening with High-Throughput Liquid Chromatography-Tandem Mass Spectrometry
2021	International Journal of Radiation Oncology, Biology, Physics	Radiosensitivity-specific proteomic and signaling pathway network of non-small cell lung cancer
2020	Cell Metabolism	DIA proteomics reveals hypotensive and immune-enhancing constituents in buffalo whey from different altitudes

ABOUT US

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Proteomics Analysis with Data-Independent Acquisition (DIA)

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