

Proteomics

Description

DNA & Protein Forensic Support

We provide DNA and Protein Forensic services to support criminal investigations and case work. We can utilize the classical workflow and the ANDE Rapid DNA technology workflow to perform rapid Short Tandem Repeat (STR) analysis to support forensic biologists. With the ANDE system STR results are obtained in less than 2h.

Protein analysis:

We utilize state-of-the-art Two-Dimensional High-Performance Liquid Chromatography (2D-HPLC, aka MudPIT), Tandem Mass Spectrometry (aka LC-MS/MS) and Two-Dimensional Difference In Gel Electrophoresis (2D-DIGE) technologies to offer unsurpassed proteomics and protein forensic services. Using label free quantitation techniques, multi-dimensional protein identification technology (aka MudPit), Isotope Tags for Relative and Absolute Quantitation (iTRAQ) and Tandem Mass Tags (TMT) we can simultaneously identify and quantify proteins in body fluids and all sample types. The protein(s) of interest can be further profiled and quantified in samples and body fluids using the Luminex multi-analyte profiling technology (aka xMap) which allows you to quantify up to 100 targets simultaneously.

We can perform protein and peptide sequencing, peptide mass fingerprinting (PMF) and post translational modification (PTM) mapping to characterize the protein further and unambiguously identify the type of tissue and type of biological stain. Our protein informatics services will help you characterize the identified proteins according to their gene ontology and help place them in the context of biochemical and mechanistic pathways. We utilize validated proprietary sample preparation kits to ensure that ex-vivo changes are prevented, and the results obtained are accurate and reproducible.

DNA Analysis:

We utilize the Luminex xMAP technology and the Panomics QuantiGene technology to offer targeted genomics and DNA analysis services. The Luminex technology allows multiplexed profiling of up to 100 analytes in biological fluids.

Core Services

TANDEM MASS SPECTROMETRY (LC-MS/MS)

DNA FORENSIC SERVICES

FORENSIC MASS SPECTROMETRY PROTEIN ANALYSIS

COMPARATIVE AND SEMI-QUANTITATIVE PROTEOMICS USING TWO-DIMENSIONAL DIFFERENCE

PROTEIN ANALYSIS USING TWO-DIMENSIONAL POLYACRYLAMIDE



QUANTITATIVE MULTIPLEXED PROTEIN ANALYSIS USING THE LUMINEX XMAP TECHNOLOGY

QUANTITATIVE MULTIPLEXED RNA ANALYSIS

AUTOANTIBODY PROFILING

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LINK BIOTECH