

We offer analytical services and contract research

Analysis	Application
Protein and peptide analysis	
<p>Proteins – Capillary Gel Electrophoresis (CGE)</p>	<ul style="list-style-type: none"> • Protein molecular weight calculations • Expression yield quantification • Protein-DNA interactions • Post-translational modification analysis • QA/QC of vaccines – impurity measurements • Batch to batch analysis - consistency/stability/formulation <p>Excellent sensitivity (1µg/ml) for most proteins, mass accuracy of <1% and concentration accuracy of <5%.</p>
<p>Proteins – Capillary Zone Electrophoresis (CZE)</p>	<ul style="list-style-type: none"> • Separation of proteins according to mass/charge ratio • Protein/Protein, Protein/Ligand interactions • Native protein analysis • PTM analysis
<p>Antibody analysis</p>	<p>Analysis of both the heavy and light chains of antibodies, including glycosylation analysis on both.</p> <p>Both CGE analysis (for molecular weight determination and PTM analysis) and CZE analysis (for antibody-antigen interactions) can be carried out.</p>
<p>Glycoform analysis</p>	<p>Diagnostics, therapeutics, and QA/QC studies.</p> <p>Used in the identification of recombinant vs naturally occurring erythropoietin (Epo). Could be used as a test for doping in athletes. Potential use also in monitoring drug dose of patients receiving recombinant Epo for end stage renal failure.</p> <p>Transferrin glycoform analysis. Used in the identification of carbohydrate deficient transferrin in alcoholic patients.</p>

Enzyme analysis	Enzyme-substrate interactions.
cIEF	Used to determine pI of unknown proteins – relates to the first dimension of a 2D gel separation
Peptide analysis	Separation and quantification of peptides in a mixture.
Nucleic Acid Applications	
Double stranded DNA	Analysis of PCR products and dsDNA sizing in the range of 40-1100bps.
Oligonucleotide analysis	Highly sensitive oligo analysis e.g. for QA/QC (100fg/ml sensitivities attained)
Nucleotide analysis	Analysis of deoxynucleotides in their mono, di and tri-forms.
Small Molecule Applications	
Chiral Molecule Analysis	<ul style="list-style-type: none"> • Separation and analysis of enantiomeric drug molecules. • Used in the identification and quantification of a clinically active form of a pharmaceutical vs. a potentially toxic form. • Successfully applied to a wide range of chiral molecules including Warfarin, Ketoprofen, Atenolol, Propranolol.
Pesticide Analysis	Analysis of compounds such as Atrazine, Carbofuran and Parathion methyl
Water analysis	Measurements, quantification and identification of anions and cations in water.
Amino acid analysis	CZE separation of amino acid mixtures for neo-natal screening, media optimization and spent media analysis
Carbohydrate analysis	Mono and disaccharide quantification in enzyme kinetics
Inorganic acids	H ₂ SO ₄ and similar quantification
Virus Applications	
Viral Titer	<p>deltaTITER - kit-based baculovirus titration methodology developed jointly with GSK.</p> <p>Fast and accurate titration – 18 samples can be processed in 1h and results obtained overnight. Repeatability of titrations <10% compared with 50% obtained for traditional plaque assays.</p>