

NUCLEIC ACID CHEMISTRY

Genomics and Molecular Biology

Consultative oriented services from gene target identification through custom molecular biology-based assay development. Our breadth of services in molecular biology and experience in rational design can support drug and diagnostic organizations from discovery to market. GLP and CLIA compliance with BSL-3 facilities.

Genomics (Rx or Dx targets)

- ◆ Detection of sequence variants using SNP analysis or DNA sequencing methods
- ◆ Automated DNA sequencing
- ◆ High-throughput molecular platforms
- ◆ Bacterial and viral genomes

Bioinformatics

- ◆ Sequence annotation and assembly
- ◆ Comparative genomics
- ◆ BLAST/FASTA and Gene/ORF Analysis

Molecular Biology Services

- ◆ Custom gene synthesis, primer and probe design
- ◆ Mutagenesis
- ◆ High-throughput cloning
- ◆ Plasmid preparation
- ◆ Northern and Southern blots

Custom Molecular Assays

- ◆ PCR/Taqman
- ◆ DNA sequencing

DNA Sequencing

- ◆ GLP sequencing, single reaction sequencing
- ◆ Controlled DNA Shearing
- ◆ Shotgun
- ◆ Gap filling
- ◆ BACs, PACs, YACs
- ◆ Normalized/subtracted cDNA libraries
- ◆ Single reaction screening

Gene Expression Analysis

- ◆ Gene expression microarrays
- ◆ Real time PCR
- ◆ Southern
- ◆ Northern
- ◆ RNAi
 - RNAi knockout analysis of gene expression
 - RNAi sequence design, cloning, sequence verification, custom QPCR assays
 - RNAi production services

