



Gene Expression Studies

Gene expression analysis is fundamental to biologics development, particularly within pharmacodynamics. By monitoring how therapies influence genetic activity, researchers uncover specific mechanisms of action and identify potential risks or benefits. Comparing genetic profiles before and after treatment reveals vital biomarkers that help evaluate efficacy and refine dosing strategies. Furthermore, these studies help identify resistance patterns and predict how diverse treatment groups will respond to therapy.

All assays are developed and validated according to study-specific requirements.

Service	Description	Key Benefit	Applications
qPCR (Quantitative Real-Time PCR)	High-sensitivity real-time gene expression analysis with broad dynamic range, enabling accurate relative quantification	Fast, cost-efficient comparative analysis	Expression profiling, target validation, biomarker screening
ddPCR (Droplet Digital PCR)	Absolute quantification of nucleic acids with exceptional precision and reproducibility, enabling detection of low-abundance targets and subtle expression changes	Superior sensitivity; reliable detection of rare targets	Rare mutation detection, copy number variation
Nucleic Acid Isolation	High-yield extraction and purification of genomic DNA and total RNA from diverse tissues and species, ensuring integrity and consistency for downstream applications	Reliable input quality for downstream assays	Sample preparation for PCR, NGS, and genomic biobanking