

LightBench[®]

with RANGER[®] TECHNOLOGY



A three-in-one instrument to enhance sample prep in NGS and cloning across different applications, including:

- Non-invasive prenatal screening – fetal fraction enrichment
- Oncology applications
- Microbial clonality assessment
- Large fragment analysis

An industry-leading size selection solution that can offer turnkey automation for many processes:

Gel Size Selection

Precision

IP-protected gel size selection process ensures market-leading precision for size selection. Capable of >97% reproducibility across sample replicates

Scalability

LightBench is capable of up to 12 channels on a single run. The LightBench also integrates with existing robotic platforms, and has a standard run time of between 30-60 minutes

Yield

Average recovery of >70%

Fragment Length Analysis

Ease of Setup

Mix sample with loading buffer, load cassette, and go

Cost-Effective Solution

Can analyse up to 96 samples in a single 30 minute run to achieve industry-leading per-sample costings

Continuous Feeding by Robotic Platforms

SiLA-2 compliant LightBench[®] software facilitates loading/unloading of prepared cassettes without user intervention

Fluorescence Assays

Enables Accurate Smear Analysis

Combines with Fragment Length Analysis to ensure higher accuracy for molarity estimates

Reduces Equipment in the Lab

Combining size selection, fragment length analysis and fluorescence readers saves labs up to 3 instruments

- Simplifies complicated lab workflows
- Reduces the need for additional capex platforms
- Integrates with automated robotics

Small Fragment Performance Specifications

Specification	Typical Value	Notes
Allowable Size Range	<300 bp	Larger fragments possible with extended run times
Loading Capacity	≤ 1.5 µg	Higher inputs possible for samples with broad size distribution
Size Selection Modes	Low Pass Band Pass High Pass	Ranger® Software enables different ways to define the boundaries of target ranges
Accuracy	>95%	Measured as the deviation between the specified target size and the size of the collected fraction
Reproducibility	>97%	Measured as 2X the standard deviation of the size of replicate samples
Min. Size Distribution as CV	<3.5%	
# Samples / Run	12 (CGI-Format) 8 (SBS-Format)	Depends on reagent kit selection
Run Time	30-60 minutes	Depends on target size
Extraction Sample Volume	25 - 35 µl	Final volume influenced by pipetting technique
Intrinsic Recovery Efficiency	Average >70%	



Yourgene Health is a leading genomic technologies and services business, enabling the delivery of genomic medicine.

Yourgene Health
Citylabs 1.0
Nelson Street
Manchester
M13 9NQ, UK

T: +44 (0)161 669 8122

www.yourgene-health.com

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**For further information,
please email info@yourgene-health.com**