

Product Sheet



Benchling Registry



Benchling

Model anything, track everything

Registry is an agile sample management system that models and tracks scientific data for all molecules — biomolecules, small molecules, cell lines, animals, reagents — in one location.

Build a F.A.I.R. foundation for all your R&D data

Model biomolecules, and small molecules — without a single line of code

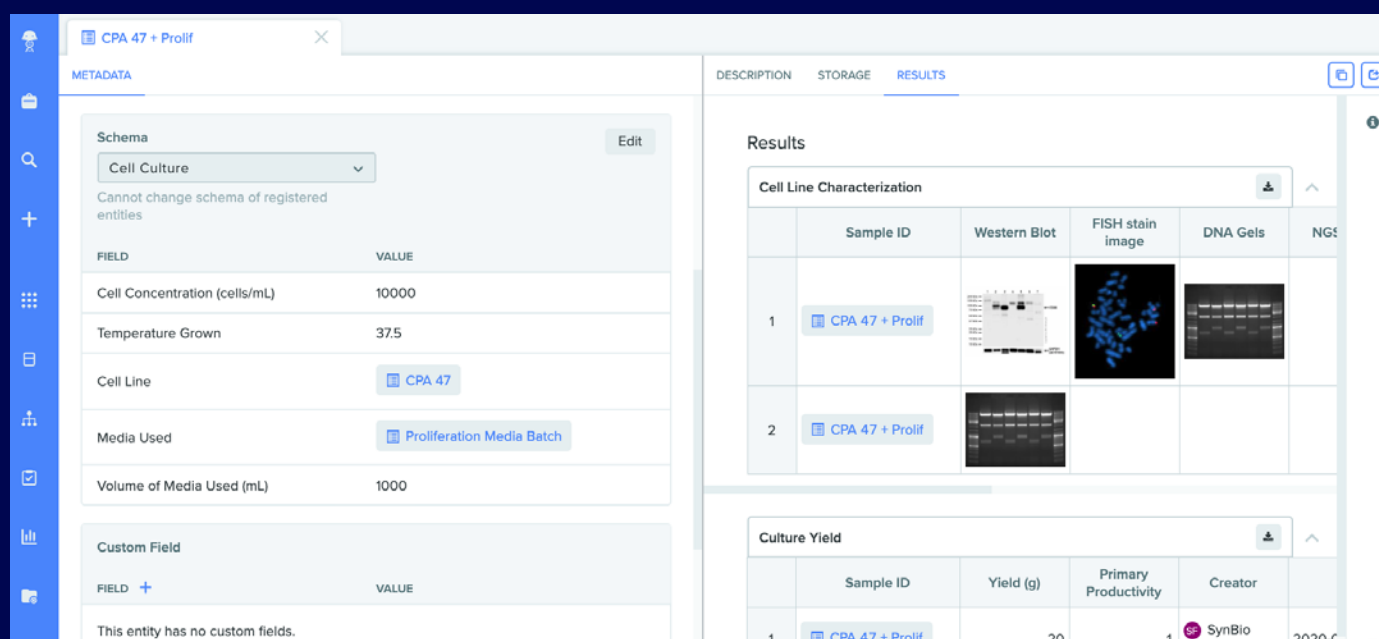
Model a broad range of molecules, including proteins, bioconjugates, small molecules, and nucleotides with metadata fields to cater to your scientific needs. Configure and adjust entity and data types with a simple, point-and-click interface.

Capture and interrogate the lineage of all molecules to reveal new insights

Map relationships between all your entities: DNA, plasmids, cell lines, and proteins. Record the lineage of all your biological and chemical entities and enforce uniqueness constraints so you never register twice.

Centralize and easily share sample and experiment data in context

Link all relevant results, notebook entries, and entities to the corresponding biomolecule of interest, so that you can get a 360 degree view of the sample. Share complete, high- integrity data to easily collaborate with your partners.



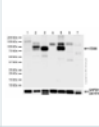
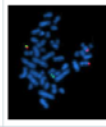
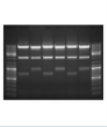

The screenshot displays the Benchling Registry interface for a sample named "CPA 47 + Prolif". The interface is divided into two main panels: METADATA and RESULTS.

METADATA Panel:

- Schema:** Cell Culture (cannot change schema of registered entities)
- Fields:**
 - Cell Concentration (cells/mL): 10000
 - Temperature Grown: 37.5
 - Cell Line: CPA 47
 - Media Used: Proliferation Media Batch
 - Volume of Media Used (mL): 1000
- Custom Field:** This entity has no custom fields.

RESULTS Panel:

- Cell Line Characterization:**

Sample ID	Western Blot	FISH stain image	DNA Gels	NGS
1 CPA 47 + Prolif				
2 CPA 47 + Prolif				
- Culture Yield:**

Sample ID	Yield (g)	Primary Productivity	Creator
1 CPA 47 + Prolif	20	1	SynBio

Model rich relationships for lineage tracking

- Model a broad range of biomolecules, small molecules, and the combination of the two in bioconjugates and chemically-modified biomolecules.
- Enforce uniqueness constraints for molecules based on sequence or chemical structure composition.
- Detect and automatically link component sequences that are reused, such as expression cassettes in plasmid sequences, using auto-fill parts.
- Map relationships between any registered entities for complete lineage tracking.
- Model explicit parent/child relationships between entities and their batches or aliquots

Simple, codeless configuration

- Designate admin privileges to create and adjust configurations in an intuitive, point-and-click interface.
- Configure a broad range of data types and entities, including DNA, RNA, chemically-modified sequences, proteins, antibodies, small molecules, bioconjugates, and animals
- Configure any custom fields, or metadata, on your entities
- Configure media and formulation component schema for complex mixtures and reagents

Automate for higher data integrity

- Auto-populate physico-chemical properties of molecules like molecular weight, isoelectric point, Log P, TPSA etc.
- Auto-compute metadata based on linked entities and parts
- Automatically register entities produced through bulk cloning, bulk translation, and bulk import functions.
- Register entities in bulk through spreadsheet import or our rest APIs.

Powerful search to enhance data findability

- Search through your Registry using entity field values, unique IDs, or aliases.
- Search large molecules using partial sequences
- Search chemical structures by matching substructures or based on similarity
- Find Notebook entries where a particular registered entity was used.

Trusted by world class leaders in R&D



The Benchling Difference



Benchling interlinks and tracks the entire R&D lifecycle — from project documentation and data acquisition to sequence design, sample management, process management, and reporting. By standardizing and centralizing R&D data and workflows on a single platform, Benchling helps forward-thinking companies accelerate their digital lab transformation to enable better, faster decision-making.

Built for Complex Science

Purpose-built to support the development of anything from biologics and biomaterials to strains and small molecules, Benchling interlinks your sequences, samples, and experiment results to ensure full traceability.

Adapts to Your Process

Built on top of a secure, high-performance cloud infrastructure, Benchling supports evolving scientific workflows and integrates with lab instruments and other software systems to help unify your R&D data ecosystem.

Intuitive and Easy to Use

Benchling's modern user interface — with natively interconnected notebook, sample registration, inventory management, and workflow design applications — means your team can work better and faster, together.

Enables Data-Driven Decisions

Centralized, standardized data capture and storage help ensure the integrity of your data, while integrated analytics tools help you derive the insights you need to make better scientific and operational decisions.



Notebook

Ensure documentation completeness and compliance



Molecular Biology

Accelerate DNA, RNA and amino acid design, at scale



Registry

Standardize, connect, and contextualize sample data



Inventory

Track and manage every sample and reagent



Workflows

Drive R&D efficiency with orchestrated process management



Studies

Generate accurate in vivo study data as part of your connected R&D



Insights

Translate R&D data into actionable insights



Benchling for Lab Automation

Automate instrument orchestration and data acquisition