The all-in-one solution for cellular characterization

biolog.com/odin

Introducing Odin

Odin is the all-in-one solution for cellular metabolic characterization, growth kinetics, and identification. Efficiently phenotype your microbes by screening hundreds or even thousands of different substrates and growth conditions in a controlled environment. Load with up to 50 plates and walk away–Odin will dutifully measure plates at the right temperature and right time.

- Characterize microbial phenotypes
- Monitor growth curves
- Measure cell respiration kinetics
- Identify unknown microbes

Heroically Fast Characterization

Cellular phenotypes play a huge role in determining how efficiently a given microbe can achieve an outcome, from producing a drug product to fixing nitrogen in soil.

Genetic mutations are introduced over repeated passages and can fundamentally change growth profiles, production performance, and other functionality. A microorganism may grow better at different temperatures or with different feed sources—to understand it all is a mind-boggling exercise!

Odin enables you to efficiently characterize cell phenotypes. In conjunction with the Phenotype MicroArray™ Microplates, microbes can be grown under a wide range of conditions, with data automatically captured to reflect growth and respiration.

ENVIRONMENTAL MONITORING

DRUG DISCOVERY AND DIAGNOSTICS

BASIC RESEARCH

BIOPROCESS AND FERMENTATION

EDUCATION

Growth Measurement, on the Double

Odin has the capacity and control to efficiently perform phenotypic screening. Thousands of phenotypes around carbon, nitrogen, and phosphorous sources, as well as chemical, metal and environmental sensitivities can be tested in a single experiment.

Odin can see what's happening in two ways. To gain insight into cellular metabolism, it measures NADH production amplified by a reporter dye. If you're focused on cell growth, leave the dye out and take the same measurement.

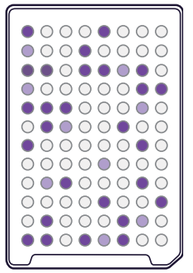
Comparing cell lines, understanding mutations, monitoring for phenotypic drift can all be done efficiently. Whether you care about microbes, mammalian cells, mictochondria, or microbial communities, there are panels suited to answer your burning phenotype questions.

Automate Your Identification

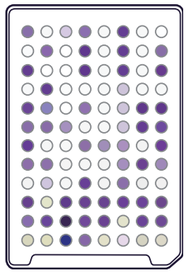
Concerned about a contaminant, or don't know what's growing? For nearly 40 years, Biolog technology has been used for microbial identification. Using the same principle as the phenotype plates, a proprietary set of reagents are pre-arrayed on microplates and respiration is monitored over time.

At every interval, Odin will compare the metabolic fingerprint against its extensive database of 2,000+ organisms. It will stop the experiment when it has made a match. Now you can identify yeast, bacteria, anaerobes, or fungi with a single instrument.

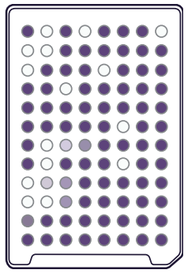
AN (Anaerobes)



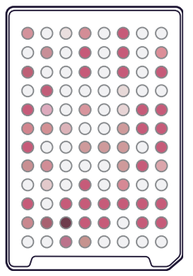
GEN III (Aerobes)

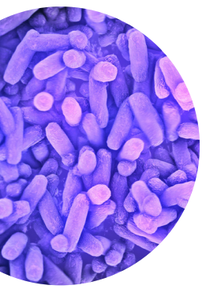


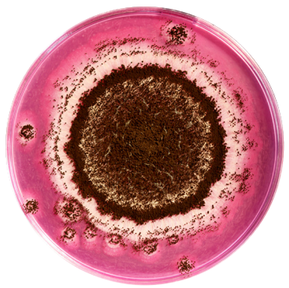
YT (Yeast)

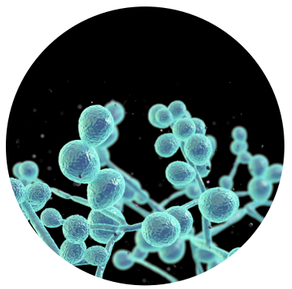


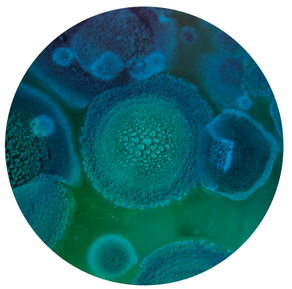
FF (Filamentous Fungi)





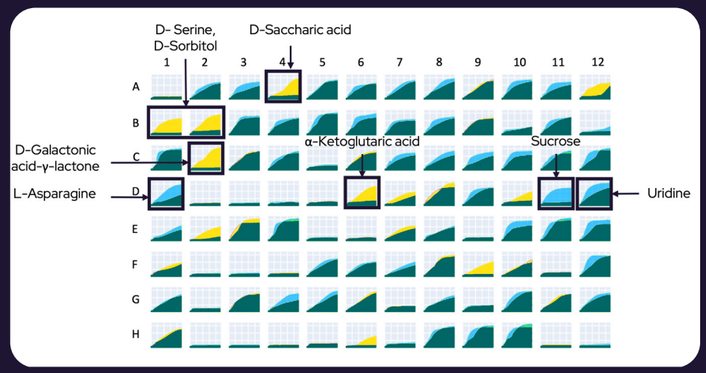






Odin for All

With a 50-plate capacity, Odin has the flexibility to handle large experiments, multiple small experiments, and multiple operators at the same time. Experimental protocols are built-in, so there's less time spent inputting setup details, and more time to interpret the analyzed results. Quickly focus on the results that matter the most so you can move on to the next steps of your research.



ODIN SEES WHAT IS HAPPENING IN TWO WAYS

It measures a reporter dye at one wavelength to measure NADH production, effectively reporting the rate of metabolic respiration.

Odin also measures optical density (OD) at a second wavelength to determine how quickly the microbes are dividing. Taken together, you get a full picture of how your microbes grow best.

KINETIC METABOLIC CURVES, DEMONSTRATING VARYING CARBON SOURCE UTILIZATION

OD measurements representing metabolic activity are measured over time and compared to a reference or between strains.

Specifications

Dimensions	21 in x 25 in x 33.1 in (53.4 cm x 61.9 cm x 84.2 cm)
Power	100 to 240 volts, 50/60 Hz
Operating Temperature Range	18-28˚C
Incubation Temperature Range	22-45˚C
Temperature Consistency	±2 ˚C in the tray chamber
Incubation Humidity Range	Ambient
Test Capacity	50 microplates
Optical Density (OD) measurements at 2 wavelengths	490 nm or 590 nm, and 740 nm
Temperature Control	Input of set temperature by external computer
Temperature Indication	Output to external computer and 7 segment display
Monitor	22 inch LCD flat panel

Find out more about Odin

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