



BIOSYNTH®

Enzyme Products

Catalog Enzymes

Screening Kits

X-Shining™

Beta-lactamases

Securing Life Sciences Supply Chains

Large Collection of Enzymes for Research

Biosynth have a large collection of Enzymes for research, pharma, cosmetics and fine chemical applications. You can now select panels of key enzymes for individual purchase and large-scale manufacturing from our enzyme screening kits and our portfolio of high performing betalactamase enzymes, X-Shining™ products and many more.

Screening Kits

Our novel enzyme screening kits provide a large range of enzyme variants to screen across target substrates and reaction conditions for your biocatalysis application. Once you have found your target enzyme(s) (hits), we can supply them individually in large quantities up to the multiple kilogram range.

Discover our range of screening kits:

- Nitrile hydratases
- Lipases
- Peroxidases
- Phospholipase D
- Beta-Lactamase

Nitrile Hydratases

Produced by our enzyme experts using in vivo recombination, our nitrile hydratases are ecofriendly metalloenzymes which convert nitrile substrates into useful amide products. Currently nitrile hydratases are used for the production of acrylamide from acrylonitrile but they also have potential applications in:

- The removal of toxic nitriles from industrial Waste, water and the environment.
- The textile industry to improve synthetic block properties
- In the cosmetic industry to produce lactamide

Lipases

We can offer more than 40 unique lipases of microbial origin, carefully selected and engineered for applications in the chemical, pharmaceutical and food and feed industry:

- Production of nutritionally valuable fats and oils
- Hydrolysis/Esterification of C4-C22 fatty acids
- Emollient ester synthesis for cosmetics
- Biocatalytic stereospecific resolution of chiral alcohols
- Bioplastic precursor modification refinement

Our lipases are available individually or as part of a lipase kit (25 unique lipases), a lipase reference kit (7 reference lipases) and an immobilized kit (7 unique immobilized lipases).

Peroxidases

As oxidoreductase enzymes our peroxidases have the ability to carry out a range of reactions: epoxidation, N-demethylation, halogenations, alcohol/aldehyde oxidation and N- or S-oxidation. They are available individually or as part of our peroxidase screening kit which benefit from:

- High activity, specificity and selectivity
- Mild reaction conditions protecting your substrate
- Minimized side reactions and reduced waste
- Hydrogen peroxide as co-substrate, eliminating the need of cofactor recycling systems.

Phospholipase D

The Phospholipase D Kit contains four highly selective, recombinant phospholipase D enzymes with a broad pH range for transphosphatidyltransferase reactions converting phospholipids into functionalized lipids for application in API synthesis. Due to hydrolysis as well as catalyzing transphosphatidyltransferase reactions, Phospholipase D is an excellent candidate for industrial, pharmaceutical and cosmetic synthesis applications.



Beta-Lactamases

LacBuster™ is a broad range beta-lactamase formulation recombinantly produced in E. coli with activity towards penicillins, 4th and 5th generation cephalosporins and carbapenems.

LacBuster™ has been optimized for sterility testing and environmental monitoring in the manufacture and dosage formulation of beta-lactam antibiotics.

- LacBuster™ - L - LacBuster-L 1000 IU, β - lactamase I & II, sterile liquid
- LacBuster™ - S - Beta-lactamase I & II available as 50 IU, 2000 IU, 5000 IU and as, lyophilized, gamma irradiated and non sterile.
- LacBuster™ Media Plates- LacBuster-Contact and Settle Plates
- Penase, 3300 IU, beta-lactamase I, lyophilized

Lipase Suicide Inhibitors

Our lipase suicide inhibitors can be utilized to determine lipase and hydrolase activity, even in complex protein mixtures. The molar amount of enzyme can be determined by active site titration experiments.

X-Shining™ Thermostable Luciferase

Biosynth's modified thermostable X-Shining™ Luciferase is suitable for any luciferin-luciferase-based assay. Just some of its applications are in ATP tests in hygiene monitoring, drug screenings and bacteria identification in microbial assays. Our new luciferase has been optimized by genetic engineering to have:

- Strongly increased thermostability
- Strongly increased storage stability.

We have X-Shining™ AST products for the rapid testing of imipenem, cefotaxime and ampicillin antibiotic susceptibility.

X-Shining™ all-in-one ATP Assay

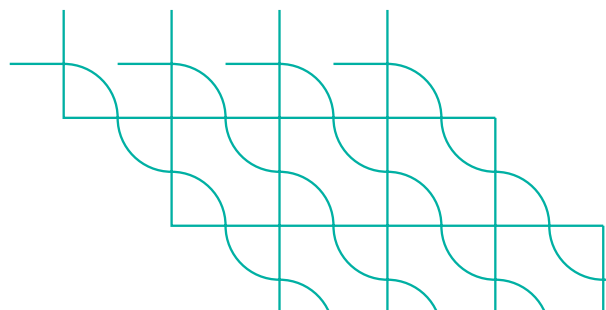
A single vial containing an optimized reaction solution for the specific bioluminescent detection of ATP levels. Measuring ATP is crucial to study cell cultures, viability and response, biochemical processes, assess water quality, test for biological contamination, monitor a broad range of enzymatic activities and to assess antibiotic efficacy and resistance in populations.

Also in our Enzyme Library...

Amidases, Isoamylase, Catalases, T7 RNA Polymerase and Proteinases/Peptidases.

Visit our enzyme product catalog to see our whole range of Hydrolases, Transferases, Lyases, Oxidoreductases and other enzymes.

For more information on our enzyme products, services and technologies visit www.biosynth.com/biologics/enzymes





Global Reach



Global Locations

Switzerland

United Kingdom

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Slovakia

United States

China

India

South Korea

Japan

Austria

Netherlands

Germany

About Biosynth

Securing Life Sciences Supply Chains - where Chemistry meets Biology, Products meet Services and Innovation meets Quality, Biosynth is at the Edge of Innovation.

With an unrivaled research product portfolio of over a million products and end-to-end manufacturing services, we are science led and customer focused to solve problems, taking pride in delivering products and projects that others cannot. Our expertise and capability run across Complex Chemicals, Peptides and Key Biologics - All from one trusted partner.

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