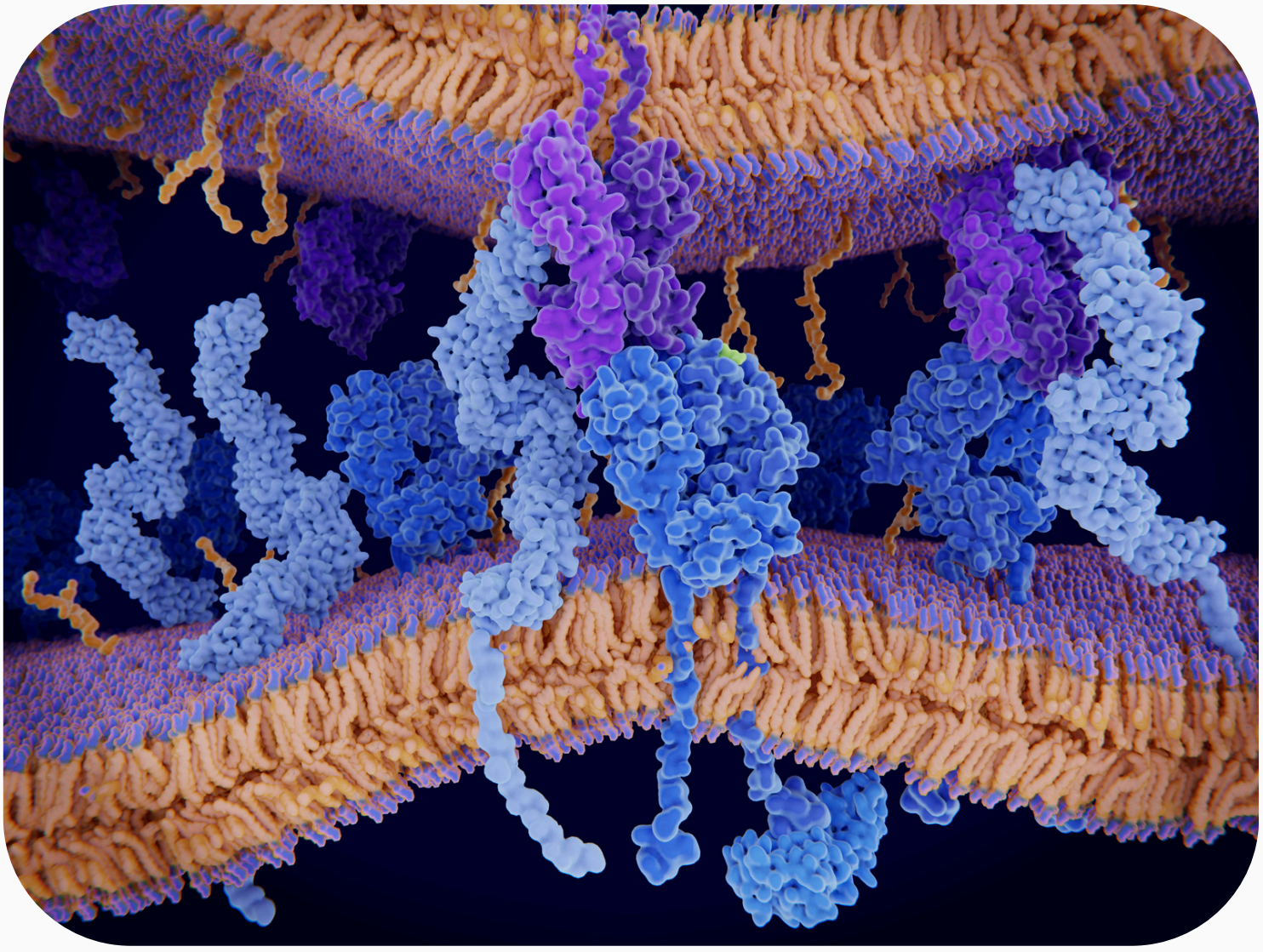
SYNBIOTIK

www.synbiotiktr.com

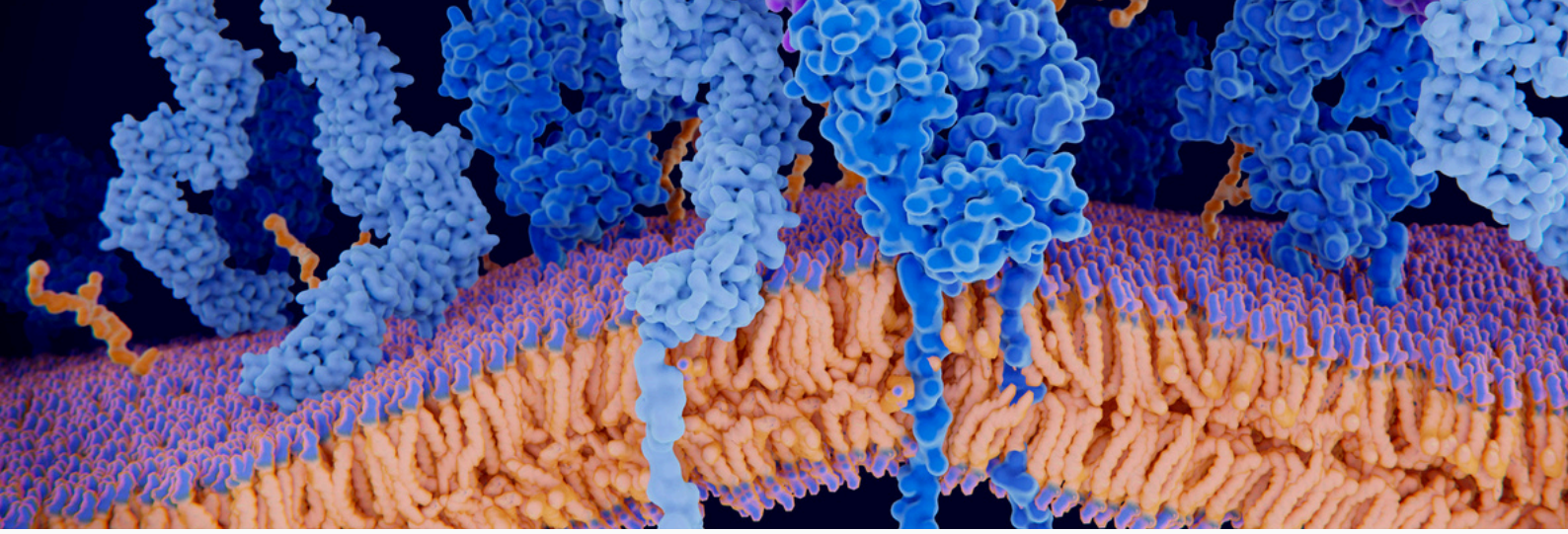
# PRODUCT CATALOGUE



*We do engineer life*

2025

# CONTENT



# About Us

Since our founding in 2015, Synbiotik Biotechnology has pursued a clear vision: leveraging the transformative potential of biological systems to build a better, more sustainable future. Inspired by the pursuit of scientific excellence, our scientists develop cutting-edge biotechnology products and deliver innovative, high-impact solutions that redefine industry standards.

We are committed to making high-quality, advanced biotechnological solutions more accessible. Our diverse portfolio includes products and services to expand it to meet the evolving needs of the industry. Through strategic partnerships in health and biotherapeutics, we actively position ourselves within this rapidly evolving industry, advancing progress with groundbreaking research and development initiatives every day. We provide services to different businesses and academic labs to improve their output with help of synthetic biology. We continue to support our partners for their adaptation to upcoming bio-based economy.

For new partnerships and investor related inquiries, please send e-mail to info@synbiotiktr.com

SYNBIOTIK

# Our Facility

At Synbiotik Biotechnology, we offer innovative biotechnology products and services for both academia and industry. Our 400 m² state-of-the-art laboratory is equipped to support comprehensive R&D and production in microbial and mammalian cell fermentation, protein, DNA, and mRNA purification, as well as recombinant DNA technologies, biotherapeutic development, and synthetic biology applications.

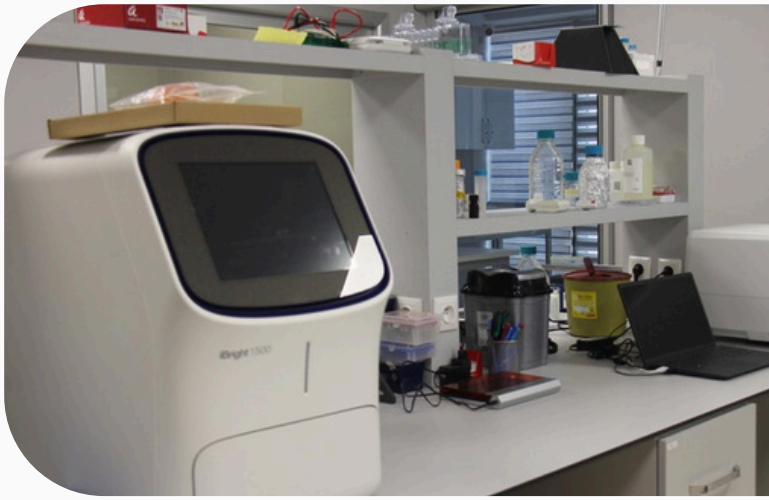
Our facility includes:

- Our capabilities include:
- Microbial and mammalian cell culture labs with bioreactors, $CO_2$ incubators, and orbital shakers
- Biomolecule purification using AKTA Pure and AKTA Go systems
- Genetic analysis with qPCR, gel imaging, and single-molecule sequencing (MinION)
- Cell analysis and imaging with flow cytometry (DxFlex) and Cytation-7
- Biochemical analysis with microplate readers (BioTek Synergy H1M)

Our specialized infrastructure also features:

- Dedicated spaces for RNA, DNA, and protein production
- Specialized labs for fermentation and cell culture
- A 15 m² cleanroom designed for GMP compliance

With our integrated expertise and cutting-edge infrastructure, Synbiotik Biotechnology is your trusted partner for advanced biotech innovation.



# Products

# Polymerases

Synbiotik Biotechnology empowers your PCR workflows with precision and efficiency through our premium polymerases, reverse transcriptase, and master mixes. Designed for high processivity, our enzymes deliver superior performance in applications demanding exceptional accuracy and speed, helping you achieve groundbreaking results.

**Key Features:**

- **Unleash Efficiency:** Achieve better amplification with fewer cycles, significantly saving valuable time and resources in your projects.

- **Ensure Accuracy:** Our PFU polymerase, with its robust proofreading capabilities, guarantees accurate DNA replication, minimizing errors crucial for long amplicons.

- **Tackle Any Template:** Perfectly suited for the diverse range of templates encountered in diverse applications, including GC-rich and other challenging sequences.

- **Count on Consistency:** Obtain reliable, high-yield amplification even under demanding experimental conditions for all workflows.

- **Accelerate Your Research:** Minimize reaction time with optimized speed, allowing you to iterate and innovate faster without compromising performance.

Experience the difference in your next experiment and elevate your research with our cutting-edge enzymes.

# Rai™ Pfu High Fidelity DNA polymerase

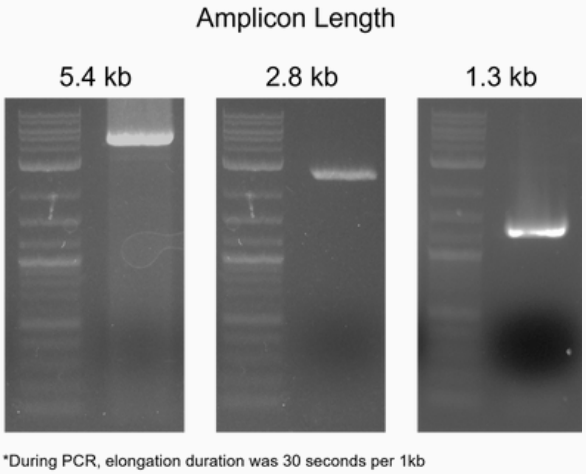



**Figure 1. Amplification of DNA by Rai™ Pfu High Fidelity DNA polymerase**

## Description:

Rai™ Pfu High-Fidelity DNA Polymerase is a thermostable enzyme with strong 3'→5' proofreading activity, offering ultra-low error rates for precise DNA amplification. Ideal for cloning, mutagenesis, and sequencing, it delivers high-yield, blunt-ended products even from GC-rich or long templates.

| Cat No. | Product Name | Size |
|---|---|---|
| MCE0205 | Rai™ Pfu High Fidelity DNA Polymerase | 100 U (S)<br>400 U (L) |
| MCE0206 | Rai™ Pfu High Fidelity 2X Master Mix | 2 X 1.25 ml (S)<br>10 X 1.25 ml (L) |

# Rai™ Taq DNA polymerase

## Description:

Rai™ Taq DNA Polymerase is a high-performance recombinant enzyme designed to enhance the amplification of DNA in PCR applications. Rai™ Taq DNA polymerase combines the robust properties of Thermus aquaticus Taq DNA polymerase with the processivity-enhancing DNA binding domain. The fusion of Taq DNA polymerase and domain results in improved speed, fidelity, and reliability.

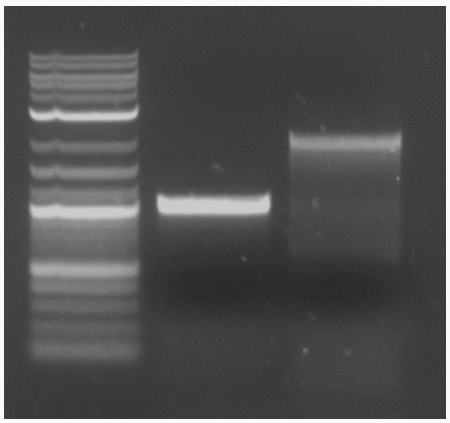


**Figure 2. Colony PCR results from cells picked directly from agar plate. Amplicon lengths are 1kb and 2kb.**

| Cat No. | Product Name | Size |
|---|---|---|
| MCE0201 | Rai™ Taq DNA Polymerase | 500 U (S)<br>2000 U (L) |
| MCE0202 | Rai™ Taq 2X Master Mix | 1.25 ml x 10 |
| MCE0203 | Rai™ Taq Hot Start DNA Polymerase | 200 U (S)<br>1000 U (L) |
| MCE0204 | Rai™ Taq Hot Start 2X Master Mix | 1.25 ml x 10 |

# Rai™ Reverse Transcriptase

## Description:

Rai™ Reverse Transcriptase is an engineered, high-processivity enzyme optimized for efficient and accurate cDNA synthesis from RNA templates. It performs reliably across a broad range of RNA inputs, enabling sensitive and high-yield reverse transcription for demanding applications like RT-qPCR, RNA quantification, transcriptome analysis and RNA-seq.

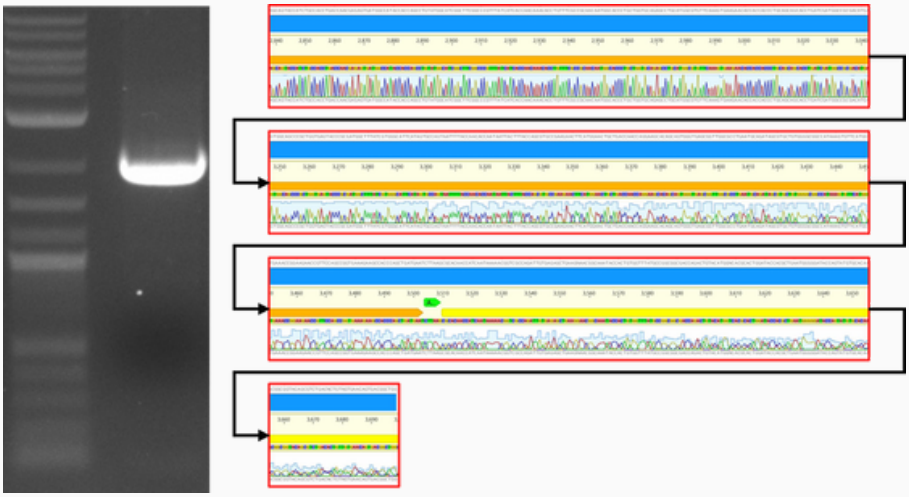


**Figure 3. PCR from cDNA synthesized via Rai™ Reverse Transcriptase. The pieces is cloned and sequences succesfully.**

| Cat No. | Product Name | Size |
|---|---|---|
| MCE0301 | Rai™ Reverse Transcriptase | 4000 U (S)<br>10000 U (L) |

# Rai™ T7 Polymerase

## Description:

Rai™ T7 RNA Polymerase is engineered optimized for high-yield, in vitro transcription of mRNA with minimal double-stranded RNA (dsRNA) byproducts. Ideal for therapeutic and vaccine applications, it enables the synthesis of capped, polyadenylated mRNA with minimal innate immune activation.

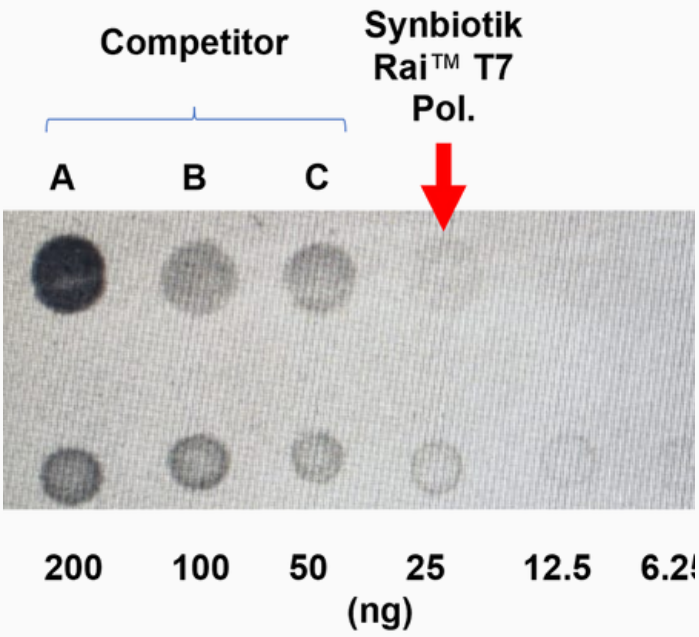
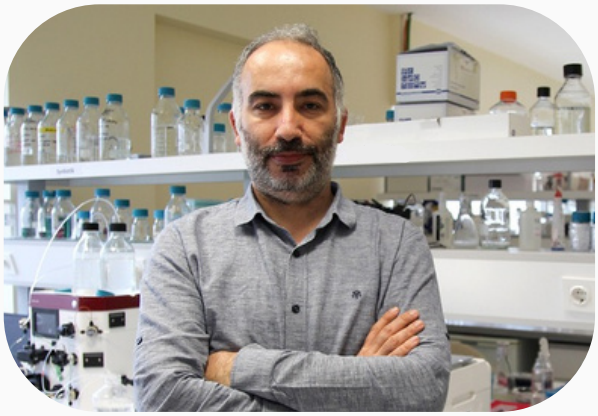



**Figure 4. dsRNA quantitation via dot blot assay**

| Cat No. | Product Name | Size |
|---|---|---|
| MCE0205 | Rai™ T7 Polymerase | 4000 U (S)<br>20000 U (L) |

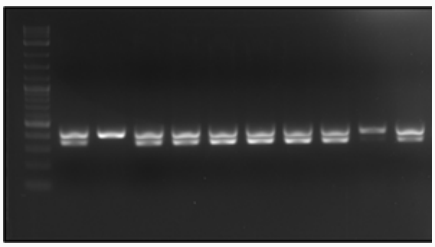
# From our customers



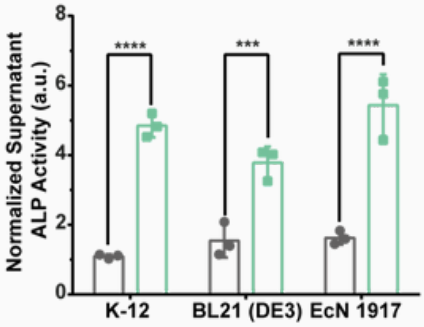
Bilkent University

## Assoc. Prof. Dr. Urartu Şeker
## PI, Synthetic Biosystem Laboratory

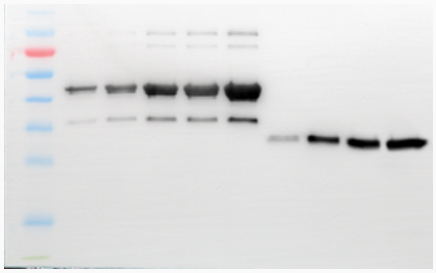
As the head of the Synthetic Biosystems Laboratory at Bilkent University, my team focuses on engineering synthetic genetic circuits, programmable therapeutics, and next-generation biosystems. For these applications, enzyme performance is critical. In our work, we require highly reliable enzymes for molecular cloning, gene expression, and in vitro transcription workflows. We have extensively used enzyme products from Synbiotik Biotechnology including Rai™ Taq DNA Polymerase, Pfu High-Fidelity DNA Polymerase, Reverse Transcriptase, their engineered T7 RNA Polymerase, Endonucleases, and cloning kits. We have consistently been impressed by their performance, yield, and reliability. These enzymes have met the rigorous demands of our experimental protocols. I was pleased to share some of our data with the Synbiotik team, and I fully endorse the inclusion of these results in their product catalog.  I confidently recommend them to other researchers looking for high-quality reagents for molecular biology applications.



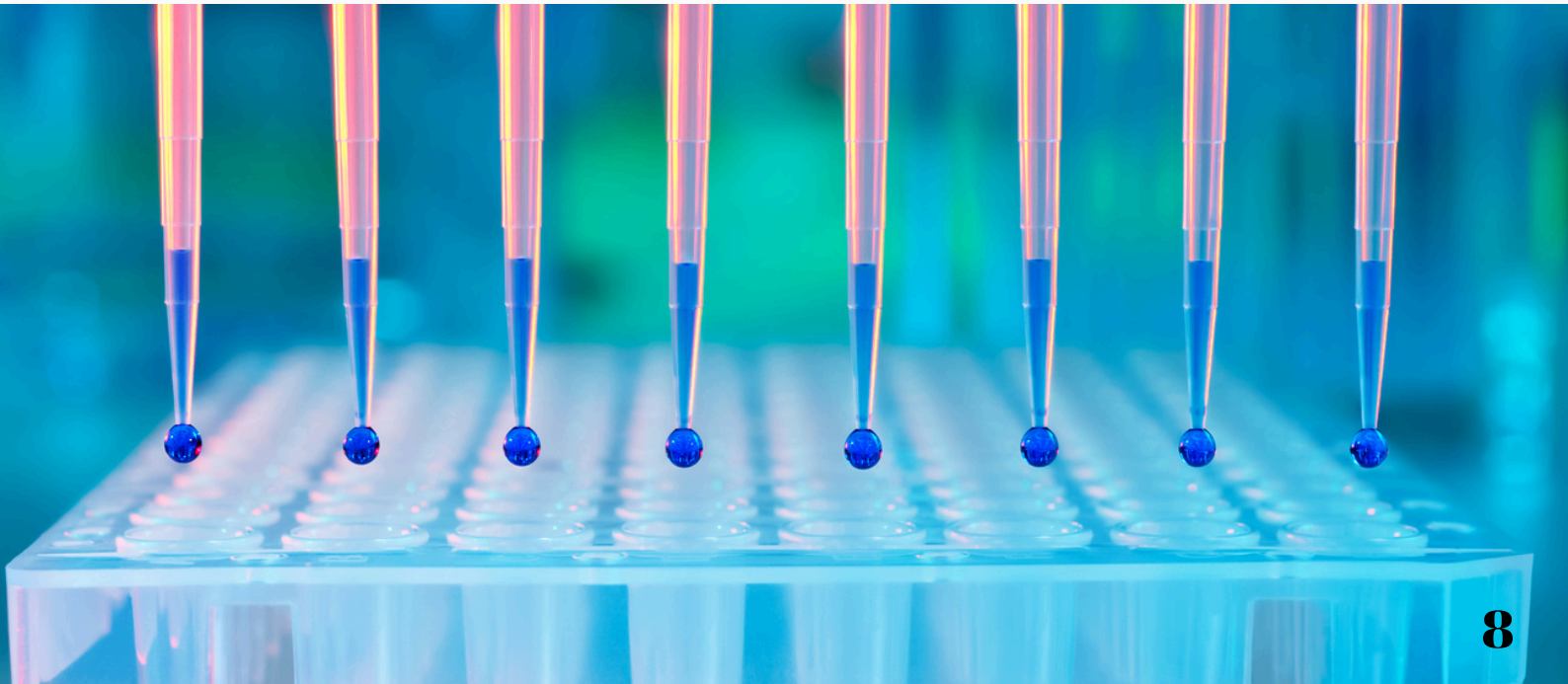
**Data generated by using MCE0202, colony PCR results after gene knockout**




**Data generated by using BEK1001, ALP activity test from cells**



**Data generated by using SAB1001, western blot with his-tagged proteins**



# Restriction Endonucleases

Synbiotik Biotechnology offers its latest high-quality restriction endonucleases with unmatched precision and reliability across a wide range of applications. Whether you're building plasmid constructs, preparing DNA for sequencing, or assembling synthetic pathways, our restriction enzymes are trusted by molecular biologists worldwide for their dependable performance and flexibility.

**Key Features:**

- **High specificity** with minimal star activity.
- **Fast and reliable performance** for DNA digestion, cloning, and mapping.
- Optimized buffer systems included for **maximum activity.**
- **Supplied in multiple pack sizes** for research or production needs.

Each enzyme is subjected to rigorous quality control to ensure performance, reproducibility, and lot-to-lot consistency. Our formulations support a wide range of experimental setups, making them ideal for use in academic labs, biotech startups, and industrial R&D facilities.

Explore our endonuclease collection to acceralate your research in molecular biology.

# AflII

MCE1004 (S - 1000 U / L - 4000 U)

**5′ … C↓T T A A G … 3′**
**3′ … G A A T T↑C … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 65 °C for 20 minutes
**Concentration:** 10,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

# BamHI

MCE1001 (S - 4000 U / L - 16000 U)

**5′ … G↓G A T C C … 3′**
**3′ … C C T A G↑G … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** No
**Concentration:** 20,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

# BsaI

MCE1010 (S - 1000 U / L - 4000 U)

**5′ … G G T C T C (N)1↓ … 3′**
**3′ … C C A G A G (N)5↑ … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 65 °C for 20 minutes.
**Concentration:** 10,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (*), CpG (**)

# BseRI

MCE1011 (S - 100 U / L - 400 U)

**5′ … G A G G A G (N)10↓ … 3′**
**3′ … C T C C T C (N)8↑ … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 80 °C for 20 minutes.
**Concentration:** 1,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

# DpnI

MCE1013 (S - 500 U / L - 2000 U)

**5′ … G A-(Methyl)↓ T C … 3′**
**3′ … C T ↑A-(Methyl) G … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 80 °C for 20 minutes.
**Concentration:** 10,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (+)

# EcoRI

MCE1008 (S - 5000 U / L - 20000 U)

**5′ … G↓A A T T C … 3′**
**3′ … C T T A A↑G … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** No
**Concentration:** 20,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (**)

# EcoRV

MCE1009 (S - 5000 U / L - 20000 U)

**5′ … G A T↓A T C … 3′**
**3′ … C T A↑G A G … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 65 °C for 20 minutes.
**Concentration:** 20,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (**)

# HindIII

MCE1012 (S - 5000 U / L - 20000 U)

**5′ … A↓A G C T T … 3′**
**3′ … T T C G A↑A … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 80 °C for 20 minutes.
**Concentration:** 20,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

*Decreased activity in some nucleotide combinations, **Blocked in some nucleotide combinations

# KpnI

MCE1002 (S - 4000 U / L - 16000 U)

**5′ … G GTAC↓C … 3′**
**3′ … C↑CATG G … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** No
**Concentration:** 20,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

# MluI

MCE1003(S - 1000 U / L - 4000 U)

**5′ … G↓GATCC … 3′**
**3′ … CCTAG↑G … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** No
**Concentration:** 10,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (+)

# NcoI

MCE1016 (S - 500 U / L - 2000 U)

**5′ … C↓CATG G … 3′**
**3′ … G GTAC↑C … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 80 °C for 20 minutes.
**Concentration:** 5,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

# NotI

MCE1007 (S - 250 U / L - 1000 U)

**5′ … GC↓GGCC GC … 3′**
**3′ … CG CCGG↑CG … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 65 °C for 20 minutes.
**Concentration:** 5,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (+)

# PstI

MCE1014 (S - 4000 U / L - 16000 U)

**5′ … CTGCA↓G … 3′**
**3′ … G↑ACGTC … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 80 °C for 20 minutes.
**Concentration:** 20,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

# SapI

MCE1006 (S - 100 U / L - 400 U)

**5′ … GCTCTTC(N)1↓ … 3′**
**3′ … CGAGAAG(N)4↑ … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 65 °C for 20 minutes.
**Concentration:** 1,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (-)

# XbaI

MCE1015 (S - 1000 U / L - 4000 U)

**5′ … T↓CTAG A … 3′**
**3′ … A GATC↑T … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 65 °C for 20 minutes.
**Concentration:** 10,000 U/ml
**Methylation Sensitivity:** dam (+), dcm (-), CpG (-)

# XhoI

MCE1012 (S - 2000 U / L - 8000 U)

**5′ … C↓TCGA C … 3′**
**3′ … C AGCT↑G … 5′**

**Reaction Conditions:** 1X UCut Buffer, 37 °C.
**Heat inactivation:** 65 °C for 20 minutes.
**Concentration:** 20,000 U/ml
**Methylation Sensitivity:** dam (-), dcm (-), CpG (**)

*Decreased activity in some nucleotide combinations, **Blocked in some nucleotide combinations

# Ligases and Exonucleases

Synbiotik Biotechnology offers a trusted range of high-performance exonucleases and DNA ligases engineered to meet the demands of modern molecular biology. Whether you're assembling DNA fragments, repairing DNA strands, or designing synthetic constructs, our enzymes deliver efficiency, precision, and consistency across diverse workflows.

**Key Features:**

- **High specificity and fidelity** for accurate DNA processing.
- **Robust performance** in ligation, DNA repair, and assembly reactions.
- **Thermostable and mesophilic** options for a variety of protocols.
- **Supplied in multiple pack sizes** to support both routine research and scale-up

All enzymes are rigorously quality-tested for activity, purity, and consistency, ensuring reproducible results across experiments. Our exonucleases and ligases are optimized for compatibility with a wide range of cloning and assembly techniques, making them ideal for use in academic labs, diagnostics, biotech development, and industrial research environments.

Explore our enzyme collection to streamline your DNA assembly and repair workflows.

# T4 Ligase

**Description:**
T4 DNA Ligase catalyzes the formation of phosphodiester bonds between adjacent 3′-hydroxyl and 5′-phosphate termini in duplex DNA or RNA. It efficiently joins both cohesive and blunt-ended DNA fragments, making it a versatile tool for cloning, vector preparation, and adapter ligation. Supplied with an optimized buffer for high activity and reliable performance in standard ligation protocols.

| Cat No. | Product Name | Size |
|---|---|---|
| MCE0001 | T4 Ligase | 20000 U (S)<br>100000 U (L) |

# Taq Ligase

**Description:**
Taq DNA Ligase is a thermostable enzyme that catalyzes the joining of adjacent DNA strands at elevated temperatures. Its high-temperature activity makes it ideal for applications requiring thermal cycling, such as Ligase Chain Reaction (LCR), SNP detection, and multiplex mutation assays. Offers high specificity for perfectly matched DNA ends.

| Cat No. | Product Name | Size |
|---|---|---|
| MCE0002 | Taq Ligase | 2000 U (S)<br>10000 U (L) |

# T5 exonuclease

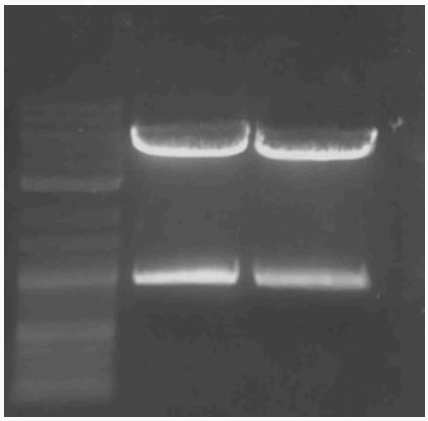
**Description**:
T5 Exonuclease is a 5′→3′ exonuclease that degrades double-stranded and single-stranded DNA with high efficiency. Commonly used in DNA assembly methods such as Gibson Assembly, it facilitates the generation of single-stranded overhangs for seamless cloning. The enzyme is robust, fast-acting, and active under standard reaction conditions.

| Cat No. | Product Name | Size |
|---|---|---|
| MCE0101 | T5 exonuclease | 1000 U (S)<br>5000 U (L) |

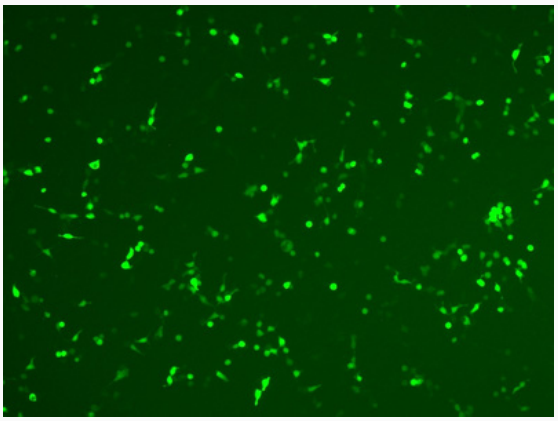
# From our customers

## Asst. Prof. Dr. Serkan Yaman
## PI and Researcher

As a principal investigator and group leader at TÜSEB Biotechnology Institute, my work focuses on mRNA technologies, and cell and gene therapies. In our lab, we rely on high-quality reagents to ensure the reproducibility and efficiency of our experiments. I've had the chance to use a variety of products from Synbiotik Inc, including their restriction enzymes, high-fidelity polymerases, ready-to-use molecular biology kits, and mRNA-related reagents. I was particularly impressed by the performance, stability, and user-friendliness of their products. The convenience they offer has helped streamline our workflows and save valuable time at the bench. It's clear that a lot of thought and expertise has gone into the development of their product line. I would gladly recommend their tools to other researchers looking for reliable and efficient solutions in molecular biology and RNA-based applications.



**Data generated by using MCE1003, RE verification**



**Data generated by using RAN0001, GFP translated from mRNA in cells, 24 hour after transfection**

# Molecular Cloning Kits, Vectors and *E.coli* Strains

Synbiotik Biotechnology offers a comprehensive portfolio of molecular cloning kits, expression vectors, and *E. coli* strains tailored to meet the needs of modern molecular biology and biotechnology workflows. Whether you're assembling complex constructs, expressing recombinant proteins, or streamlining your gene cloning pipeline, our products are designed for performance, reliability, and ease of use.

**Key Features:**

- **High-efficiency** isothermal DNA ligation and assembly mixes for seamless multi-fragment cloning—ideal for fast, scarless, and robust construct generation.
- **Versatile vector systems** supporting both *E. coli* and mammalian expression, enabling flexible experimental design from proof-of-concept to production.
- **Robust *E. coli* cloning strains** for routine plasmid propagation and library construction.
- **DE3-based *E. coli* protein expression strains** for robust and high-yield recombinant protein production.

All components are rigorously quality-tested for performance, purity, and consistency. Synbiotik's cloning ecosystem is optimized for compatibility with a wide range of molecular biology techniques, making it ideal for academic labs, biotech startups, diagnostics development, and industrial R&D.

Explore our integrated cloning and expression solutions for your needs.

# Isothermal DNA Assembly Kit

## Description:

Isothermal DNA Assembly Kit enables seamless and efficient assembly of multiple DNA fragments in a single-tube, single-temperature reaction. Utilizing the combined action of a high-fidelity polymerase and T5 exonuclease, the system ensures accurate and efficient generation of recombinant DNA without the need for thermal cycling. T5 exonuclease creates single-stranded overhangs for fragment annealing, while the high-fidelity polymerase fills in gaps with exceptional accuracy. Ideal for cloning, synthetic biology, and gene synthesis workflows, the kit offers robust performance with high specificity and minimal background.

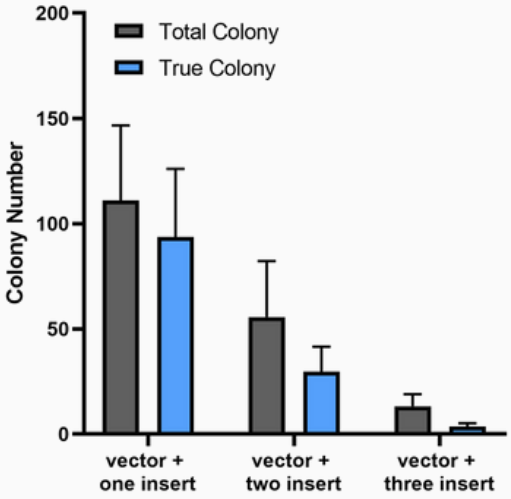



**Figure 4. Colonies formed on agar and PCR verified colonies after transformation of assembled DNA**

| Cat No. | Product Name | Size |
|---|---|---|
| MCR0001 | Isothermal DNA Assembly Kit | 20 reactions |

# Blunt End Cloning Kit

## Description:

Blunt-End Cloning Kit provides a reliable and efficient solution for the direct ligation of blunt-ended DNA fragments into linearized vectors. Designed for high-performance cloning workflows, the kit includes a high-concentration T4 DNA ligase optimized for blunt-end ligation, ensuring stable insertion of non-cohesive DNA ends without the need for overhangs or additional modifications. Compatible with PCR products generated by proofreading polymerases, this system is ideal for cloning applications where precision and versatility are essential. Perfect for gene synthesis, mutagenesis, and routine cloning tasks requiring accurate blunt-end ligation.

| Cat No. | Product Name | Size |
|---|---|---|
| MCR0002 | Blunt End Cloning Kit | 20 reactions |

# ATG™ Cloning Vector

**Description:**
A high copy vector optimized for efficient insertion of DNA fragments. Ideal for high-yield cloning and subcloning workflows.

| Cat No. | Product Name | Size |
|---|---|---|
| SCV0002 | ATG™ Cloning Vector | One vial, 2-5 µg |

# ATG™ Expression Vector (*E. coli*)

**Description:**
Expression vector designed for protein production in *E. coli*. Features strong bacterial promoters for robust expression. Works with T7 polymerase/promoter system.

| Cat No. | Product Name | Size |
|---|---|---|
| SCV0003 | ATG™ Expression Vector (*E. coli* Intracellular) | One vial, 2-5 µg |
| SCV0004 | ATG™ Expression Vector (*E. coli* Periplasm) | One vial, 2-5 µg |

# ATG™ Expression Vector (Mammalian)

**Description**:
Expression vector for high-level gene expression in mammalian cells. Includes CMV promoter and selectable marker for flexible applications.

| Cat No. | Product Name | Size |
|---|---|---|
| SCV0005 | ATG™ Shuttle Expression Vector (Mammalian single CMV promoter) | One vial, 2-5 µg |

# ATG™ *E. coli* Cloning Strain

## Description:

A high-performance E. coli strain tailored for advanced DNA cloning and plasmid propagation. It carries spectinomycin resistance for easy selection and expresses high levels of TetR and LacI repressors, effectively minimizing leaky expression from Ptet and Plac promoters. Ideal for cloning potentially toxic genes. Genetically optimized with endA1 and recA1 mutations, the strain ensures high plasmid stability, reduced nuclease activity, and excellent transformation efficiency. Suitable for blunt-end and sticky-end cloning, toxic insert handling, and vector preparation for tightly regulated expression systems.

| Cat No. | Product Name | Size |
|---|---|---|
| SCC0101 | ATG™ *E. coli* Cloning Strain | 1 vial |
| SCC0102 | ATG™ *E. coli* Cloning Strain - Chemical Competent | 6 x 0.1 ml |
| SCC0103 | ATG™ *E. coli* Cloning Strain - Electro Competent | 6 x 0.1 ml |

# ATG™ *E. coli* Expression Strain (DE3)

## Description:

Robust E. coli DE3 strain engineered for high-level protein expression from T7 promoter-based systems. Features a proprietary mutation that enhances both protein yield and cellular growth, making it ideal for demanding expression workflows. Contains a chromosomally integrated T7 RNA polymerase under lacUV5 control, with tight regulation to minimize basal expression—perfect for expressing toxic or tightly regulated proteins. Compatible with a wide range of expression vectors, this strain offers fast growth, high plasmid stability, and superior performance in small- to large-scale protein production.

| Cat No. | Product Name | Size |
|---|---|---|
| SCC0104 | ATG™ *E. coli* Expression Strain (DE3) | 1 vial |
| SCC0105 | ATG™ *E. coli* Expression Strain (DE3) - Chemical Competent | 6 x 0.1 ml |
| SCC0106 | ATG™ *E. coli* Expression Strain (DE3) - Electro Competent | 6 x 0.1 ml |

# Biomolecular Assay Kits

Our Biomolecular Assay Kit collection offers sensitive, reliable, and easy-to-use solutions for enzymatic activity detection in biochemical and cell-based studies. The line includes:

- **Phosphatase Assay Kit** – Designed for accurate quantification of phosphatase activity in vitro, supporting both serine/threonine and tyrosine phosphatases. Ideal for inhibitor screening, kinetic studies, and signal transduction research.
- **HRP Assay Kit** – Provides a rapid, colorimetric or fluorometric readout for horseradish peroxidase activity. Suitable for ELISA development, antibody validation, and oxidative stress assays.
- **Luciferase Assay Kits** – Includes Firefly, Renilla, and Gaussia luciferase detection systems, each optimized for high sensitivity, low background, and broad dynamic range. Perfect for dual-reporter assays, gene expression analysis, and promoter activity studies in mammalian cells.

All kits are optimized for high reproducibility and compatible with plate readers and automation platforms. Whether you're quantifying enzyme activity or monitoring gene expression, these kits offer robust performance for high-throughput and routine lab applications.

## Alkaline Phosphatase Assay Kit

| Cat No. | Product Name | Size |
|---|---|---|
| BEK1001 | Alkaline Phoshatase Assay Kit | 100 reactions |

## Peroxidase Activity Assay Kit

| Cat No. | Product Name | Size |
|---|---|---|
| BEK1002 | Peroxidase Activity Assay Kit | 100 reactions |

## Luciferase Reporter Assay Kit

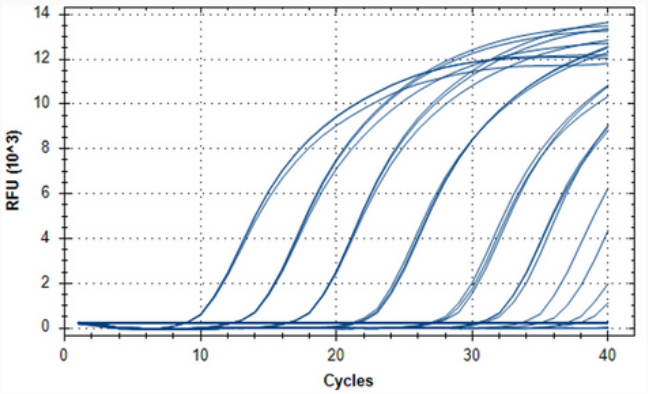
| Cat No. | Product Name | Size |
|---|---|---|
| BEK1003 | Luciferase Reporter Assay Kit - Firefly | 100 reactions |
| BEK1004 | Luciferase Reporter Assay Kit - Renilla | 100 reactions |
| BEK1005 | Luciferase Reporter Assay Kit - Gaussia | 100 reactions |

# From our customers

OMEGA BIO

## Eda Talaz, MSc
## Senior Researcher

As a senior researcher at a qPCR diagnostics company, precision, speed, and consistency are at the core of our daily operations. We've integrated Synbiotik Inc's DNA synthesis services and polymerases into our workflows, and the results have been excellent. Their DNA synthesis service delivers high-quality constructs with impressive accuracy and turnaround times, crucial factors in a fast-paced diagnostic setting. We've also had great success with their polymerases, which have proven to be highly robust and efficient, especially in qPCR assay development and validation. What sets Synbiotik apart is their clear understanding of the practical demands of applied molecular biology. Their products are thoughtfully designed, reliable, and easy to work with, saving both time and troubleshooting effort. I confidently recommend Synbiotik's tools to other researchers and diagnostic teams looking for dependable solutions.




**Data generated by using DNA synthesized via DNA Synthesis Services, qPCR amplification curve from serial diluted samples**

# Recombinant Proteins

Our diverse collection of high-quality recombinant proteins is designed to empower researchers across molecular biology, immunology, neuroscience, synthetic biology, and drug development fields. Whether you're studying disease mechanisms, engineering genetic tools, or developing diagnostic assays, our protein products offer unmatched performance and reliability.

- **Antigens & Antibodies:** A broad range of human-derived antigens (e.g., EGFR, PD-L1, HER2, TNFα) and research-use-only therapeutic antibodies (e.g., Trastuzumab, Cetuximab, Ipilimumab) support immunological and oncology research. Also available are detection reagents like Protein G and its HRP conjugate, as well as antibodies against His-tags and GFP.

- **Fluorescent Proteins:** Our monomeric GFP, RFP (mScarlet, mCherry), YFP, and BFP variants are optimized for live-cell imaging, tracking, and quantitative fluorescence applications.

- **Amyloid Proteins:** From bacterial functional amyloids (CsgA/B, TasA/B) to key players in neurodegeneration (Alpha-synuclein, Amyloid Beta peptides, Huntingtin variants), these proteins are ideal for aggregation studies and neurobiological research.

- **Cas Proteins:** Our purified Cas9 like and Cas12 like proteins (His-tagged) offer powerful genome editing capabilities for CRISPR-based research and diagnostics.

- **Proteases:** Highly active and well-characterized proteases such as TEV and SUMO protease (ULP1) provide efficient tag removal and protein maturation tools for recombinant protein workflows.

- **Reporter Enzymes:** Sensitive and versatile detection systems powered by small luciferase enzymes and His-tagged alkaline phosphatase enable accurate gene expression analysis and biosensor development.

All proteins are produced under stringent quality control to ensure reproducibility and performance across a variety of applications. Explore our portfolio to accelerate your research with trusted tools that deliver clarity, consistency, and confidence.

# Antibodies

| Cat No. | Product Name | Size |
|---|---|---|
| SAB1001 | Anti-Histidine mouse antibody (monoclonal) | 100 µg |
| SAB1002 | Anti-GFP mouse antibody (monoclonal) | 100 µg |
| SAB1003 | Trastuzumab RUO | 1 mg |
| SAB1004 | Cetuximab RUO | 1 mg |
| SAB1005 | İpilimumab RUO | 1 mg |
| SAB1006 | Ranibizumab RUO | 1 mg |
| SAB1007 | Anti-SARS-CoV-2 N protein RUO | 1 mg |
| SAB1008 | Anti-SARS-CoV-2 RBD RUO | 1 mg |
| SAB1009 | Anti-SARS-Cov-2 S protein RUO | 1 mg |
| SAB1010 | Human ACE2-Fc Fusion Protein RUO | 1 mg |
| SAB1011 | Anti-Mouse IgG HRP conjugated (polyclonal) | 1 mL |
| SAB1012 | Anti-Rabbit IgG HRP conjugated (polyclonal) | 1 mL |
| SAB1013 | Anti-Rat IgG HRP conjugated (polyclonal) | 1 mL |

# Fluorescent Proteins

| Cat No. | Product Name | Size |
|---|---|---|
| SRE0101 | Monomeric Green Fluorescent Proteins | 1 mg |
| SRE0101 | Monomeric Red Fluorescent Proteins | 1 mg |
| SRE0101 | Monomeric Yellow Fluorescent Proteins | 1 mg |
| SRE0101 | Monomeric Blue Fluorescent Proteins | 1 mg |

# Antigens

| Cat No. | Product Name | Size |
|---|---|---|
| SAN0001 | Protein G | 100 µg<br>1 mg |
| SAN0002 | Protein G-HRP conjugate | 100 µg<br>1 mg |
| SAN0003 | Human TNFalpha | 100 µg<br>1 mg |
| SAN0004 | Human CD19 (extracellular domain) | 100 µg<br>1 mg |
| SAN0005 | Human HER2 (extracellular domain) | 100 µg<br>1 mg |
| SAN0006 | Human PD-L1 (extracellular domain) | 100 µg<br>1 mg |
| SAN0007 | Human EGFR (extracellular domain) | 100 µg<br>1 mg |
| SAN0008 | Human VEGF | 100 µg<br>1 mg |
| SAN0009 | Anakinra (IL-1Ra) RUO | 100 µg<br>1 mg |

# Cas Proteins

| Cat No. | Product Name | Size |
|---|---|---|
| SAN0901 | Cas9-Open (spCas9 like) | 100 µg<br>1 mg |

# Proteases

| Cat No. | Product Name | Size |
|---|---|---|
| SAN0801 | TEV protease | 100 µg<br>1 mg |
| SAN0802 | ULP1 protease | 100 µg<br>1 mg |

# Amyloid Proteins

| Cat No. | Product Name | Size |
|---|---|---|
| SAN1001 | CsgA (C-term 6His tagged) | 100 µg<br>1 mg |
| SAN1002 | CsgB (C-term 6His tagged) | 100 µg<br>1 mg |
| SAN1003 | TasA (C-term 6His tagged) | 100 µg<br>1 mg |
| SAN1004 | TasB (C-term 6His tagged) | 100 µg<br>1 mg |
| SAN1005 | EsxA (C-term 6His tagged) | 100 µg<br>1 mg |
| SAN1006 | EsxB (C-term 6His tagged) | 100 µg<br>1 mg |
| SAN1007 | Alpha synuclein (N-term GST fused, N-term 6His tagged) | 100 µg<br>1 mg |
| SAN1008 | Amyloid Beta40 (N-term GST fused, N-term 6His tagged) | 100 µg<br>1 mg |
| SAN1009 | Amyloid Beta42 (N-term GST fused, N-term 6His tagged) | 100 µg<br>1 mg |
| SAN1010 | Amyloid Beta40 (N-term GST fused, N-term 6His tagged) | 100 µg<br>1 mg |
| SAN1011 | Huntingtin, 25-glutamine repeat (25Q-Htt) (N-term GST fused, N-term 6His tagged) | 100 µg<br>1 mg |
| SAN1012 | Huntingtin, 46-glutamine repeat (46Q-Htt) (N-term GST fused, N-term 6His tagged) | 100 µg<br>1 mg |
| SAN1013 | Huntingtin, 103-glutamine repeat (103Q-Htt) (N-term GST fused, N-term 6His tagged) | 100 µg<br>1 mg |

# Reporter Enzymes

| Cat No. | Product Name | Size |
|---|---|---|
| SAN0801 | Small luciferase enzyme (C-term 6His-tagged) | 100 µg<br>1 mg |
| SAN0802 | Bacterial Alkaline Phosphotase (N-term 6His-tagged) | 100 µg<br>1 mg |

# Other Proteins

| Cat No. | Product Name | Size |
|---|---|---|
| SAN0601 | PETase | 100 µg<br>1 mg |
| SAN0602 | MHETase | 100 µg<br>1 mg |
| SAN0603 | Griffithsin RUO | 100 µg<br>1 mg |
| SAN0604 | HlyE toxin RUO | 100 µg<br>1 mg |
| SAN0605 | Human Keratin K31 | 100 µg<br>1 mg |
| SAN0606 | Human Keratin K85 | 100 µg<br>1 mg |

# Ready-to-use mRNA Products

Our expanding collection of ready-to-transfect mRNA products is engineered to support cutting-edge research in gene expression, genome editing, cell imaging, and reporter assays. Each mRNA is capped, polyadenylated, and optimized for high translation efficiency and stability in eukaryotic systems, making them ideal for both in vitro and in vivo applications.

## Fluorescent Reporters:

| Cat No. | Product Name | Size |
|---|---|---|
| RAN0001 | Ready-to-transfect GFP mRNA | 250 µg (S) // 1 mg (L) |
| RAN0002 | Ready-to-transfect RFP mRNA | 250 µg (S) // 1 mg (L) |

## Enzymatic Reporters:

| Cat No. | Product Name | Size |
|---|---|---|
| RAN0003 | Ready-to-transfect Renilla Luciferase mRNA | 250 µg (S) // 1 mg (L) |
| RAN0004 | Ready-to-transfect Firefly Luciferase mRNA | 250 µg (S) // 1 mg (L) |
| RAN0005 | Ready-to-transfect Gaussia Luciferase mRNA | 250 µg (S) // 1 mg (L) |
| RAN0006 | Ready-to-transfect β-galactosidase mRNA | 250 µg (S) // 1 mg (L) |

## CRISPR-Cas mRNA Constructs

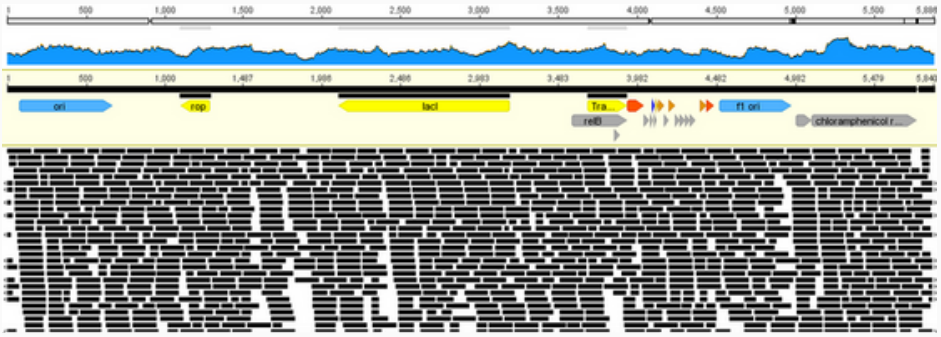
| Cat No. | Product Name | Size |
|---|---|---|
| RAN0007 | Ready-to-transfect Cas9-Open mRNA (spCas9 like) | 250 µg (S) // 1 mg (L) |
| RAN0008 | Ready-to-transfect Cas9-Open T2A GFP mRNA (spCas9 like) | 250 µg (S) // 1 mg (L) |

# From our customers

BOligo

## Baris Kucukkaraduman
## CEO

As the CEO of a Bioligo which specializing in primer synthesis, I understand the importance of partnering with service providers who uphold the highest standards of quality and reliability. We've been working with Synbiotik Inc for gene synthesis, protein production, and genome editing services. The experience has consistently exceeded our expectations. Their gene synthesis service delivers highly accurate constructs with excellent turnaround times, which has greatly streamlined our custom design workflows. We've also benefited from their recombinant protein services, which provide consistent yield and purity which are essential for our internal validation processes. In addition, their genome editing solutions have proven to be both precise and user-friendly, supporting our R&D initiatives with remarkable efficiency. What makes Synbiotik stand out is not just the technical quality of their services, but their responsiveness and deep understanding of the molecular biology landscape. I confidently recommend Synbiotik to any biotech team seeking robust, scalable, and dependable solutions across synthetic biology and genome engineering applications.




**Data generated by using DNA synthesized via DNA Synthesis Services, sequencing result**

# SERVICES

# Cell Line Development

We provide customized cell line development (CLD) solutions for producing monoclonal antibodies, complex biologics, therapeutic proteins, enzymes, and more. Our expertise spans CHO, HEK, *Pichia pastoris*, and *E. coli* systems, supported by advanced technologies like AI-assisted codon optimization, and in-house genetic libraries.

**Why Choose Us?**

- Custom Design: High-yield, scalable, and stable cell lines tailored to your needs
- Advanced Tools: AI, CRISPR, and high-throughput screening for optimal outcomes
- Cost-Effective: Fast timelines, reduced development costs

Our Services

- Rapid Cell Line Development: Streamlined workflow from transfection to screening
- Optimization & Scale-Up: Enhancing stability, productivity, and regulatory readiness

**System Flexibility**

- Mammalian (CHO, HEK) – Ideal for biologics and gene therapies
- Yeast (*P. pastoris*) – Eukaryotic expression with cost efficiency
- Bacterial (*E. coli*) – Fast, affordable protein and enzyme production

**Partner in Your Success**

Let us help you accelerate innovation and bring your next-generation biologics to life.

# Assay Development

Our assay development platform offers end-to-end solutions for designing, optimizing, and validating robust analytical methods tailored to your biologics, biosimilars, or novel therapeutic candidates. From functional and binding assays to potency and stability studies, we ensure data integrity and regulatory compliance across all assay formats.

**Why Choose Us?**

- **Tailored Assays:** Designed to match your molecule's mechanism of action and analytical goals
- **Platform Versatility:** ELISA, cell-based assays, qPCR, reporter assays, and more
- **Regulatory-Ready:** Assays developed to meet GMP and ICH guidelines

**Our Services**

- **Custom Assay Development:** From concept to qualified method, built around your target product
- **Potency & Functional Testing:** Quantitative readouts for biological activity
- **Assay Optimization:** Enhancing specificity, sensitivity, and reproducibility
- **Validation Support:** Method qualification and tech transfer to QC environments
- **High-Throughput Capabilities:** Streamlined processes for efficient screening and analysis

**Your Analytical Partner**

Empowering your R&D and QC workflows with assays that deliver actionable, reliable results.

# Nucleic Acid Services

Synbiotik Biotechnology supports your research whenever you need. Comprehensive nucleic acid service is designed to boost your project. Whether you are a R&D engineer or a PhD student, there is no need for endless effort to clone genes or do PCRs. Our PhD-level support team will guide you through every step of your nucleic acid needs and offer best the solution.

**Features and Benefits**

**· PhD-level Support Team:**
Our team will analyze your needs and offer the best solutions for you.

**· Information Security:**
We understand and value the secrecy of our customer's data and ideas. Our strict intellectual property protection policy will guarantee the security of your shared DNA and protein sequences. Without contest, only you have access provided materials and data related to your projects.

**· Best Quality Product:**
Quality checks will be performed for each of your orders. Products that pass the quality barrier will be delivered.

**• On-time Completion:**
With a 99% on-time completion rate, we are proud to tell you that we will complete your project ahead of the envisioned deadline.

## Available Services

- DNA sequencing
- Fragment Gene Synthesis
- Cloning & Plasmid DNA Preparation
- Site Directed Mutagenesis
- ORF cDNA Clones
- Genome Engineering

# Protein Services

Synbiotik Biotechnology is here to support your research every step of the way. Our comprehensive protein services are tailored to accelerate your project, whether you're an R&D engineer or a PhD student. Say goodbye to the hassle of protein analysis—be it expression, purification, or identification. Our expert PhD-level support team will guide you through every stage, providing customized solutions to meet your specific protein needs.

**Features and Benefits**

**• PhD-level Support Team:**
Our team will analyze your needs and offer the best solutions for you.

**• Information Security:**
We understand and value the secrecy of our customer's data and ideas. Our strict intellectual property protection policy will guarantee the security of your shared DNA and protein sequences. Without contest, only you have access provided materials and data related to your projects.

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**• On-time Completion:**
With a 99% on-time completion rate, we are proud to tell you that we will complete your project ahead of the envisioned deadline.

## Available Services

- Protein Production
- Protein Purification
- Protein Identification and Characterization
- Protein Engineering

# OEM Biotechnological Reagents

Synbiotik provides high-quality, cost-effective molecular biology reagents tailored for biotech startups, research labs, and companies across biopharma, diagnostics, agriculture, food, and defense sectors. We specialize in custom formulations, private labeling, and scalable supply to accelerate your innovation pipeline.

**Why Choose Synbiotik?**

• High-Performance Reagents – Enzymes, polymerases, ligases, and more, rigorously tested for consistency

• Custom & White-Label Solutions – Tailored formulations, buffer systems, and packaging

• Flexible Supply Chain – Scalable production with fast delivery for R&D to manufacturing

• Reliable Partnership – OEM expertise with responsive support and tech know-how

**Product Portfolio**

• DNA & RNA Polymerases
• Restriction Enzymes & Nucleases
• Ligases & DNA Assembly Enzymes
• Recombinant DNA Vectors
• Protein Expression Reagents
• Cell-Free TXTL Systems
• Custom Enzyme Development

**Industries We Serve**

• Biotech & Startups – Scalable, cost-effective reagents
• Biopharma & Diagnostics – Reliable components for critical workflows
• Academia & Research – Bulk, affordable, high-throughput supplies
• AgriTech & FoodTech – Sustainable biotechnology solutions
• Defense – Advanced reagents for detection and biosecurity

**Partner with Synbiotik**

From gene and protein production to mRNA therapeutics, diagnostics, and synthetic biology, Synbiotik empowers your success with reliable OEM solutions tailored to your goals.

# Our Customers















# SYNBIOTIK

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