

DNA Oligonucleotides

Standard Synthesis

DNA Oligos [Desalted]

Synthesis Scale	Price per Base	Synthesis Scale	Price per Base
Genomics	0.25	1.0 µmol	2.26
0.04 µmol	0.37	15 µmol	17.24
0.2 µmol	0.85	Larger Scales	On request

Purification

Item	Price per Oligo	Item	Price per Oligo
HPLC 0.04/0.2 µmol	13.80	PAGE 1.0 µmol	90.32
HPLC 1.0 µmol	30.97	HPLC & Dialysis 0.2 µmol	64.52
HPLC 15 µmol	212.90	HPLC & Dialysis 1.0 µmol	96.77
PAGE 0.04/0.2 µmol	38.71	HPLC & Dialysis 15 µmol	251.61

Optional Services [Aliquoting, Liquid Oligos, Certificate of Analysis etc.]

Item	Price per Oligo	Item	Price per Oligo
Aliquotation (2 nmol) ¹	25.81	Liquid Oligos (100 µM; Tubes)	2.32
Aliquotation (5 nmol) ¹	25.81	Liquid Oligos (100 µM; Plates)	0.61
Special Tube Label	0.25 ²	Degenerated Bases (IUB) ³ , Hand-Mixed	51.61
Delivery in 2D Barcoded Storage Tubes	1.29	Degenerated Bases (Custom) ⁴ , Hand-Mixed	96.77
Certificate of Analysis - Type 1 (Full Version) ⁵	80.00		

¹ You will receive 10 aliquots of either amount as well as a leftover tube with the remaining oligo amount. ² Price per Tube. ³ Hand-mixed degenerated bases according to the IUB code. ⁴ Custom hand-mixed degenerated bases. ⁵ Downgraded types (type 2 to 7) available on request.

Modifications involving the DNA Base and/or Sugar-phosphate Backbone

Item	0.04 µmol scale	0.2 µmol scale	1.0 µmol scale
2-Aminopurin	--	60.32	164.52
Biotin-dT	--	152.90	305.81
2'-Deoxyinosine (INO)	--	8.51	12.77
2'-Deoxyuridine (dU)	--	19.35	38.71
3'-Deoxy-A, C, G and T ²	--	96.77	127.74
2'-F modified base	--	28.39	42.58
5-Methyl-dC	--	13.93	19.36
Propynyl-dC (TM Enhancing Base)	--	60.32	109.68
Propynyl-dU (TM Enhancing Base)	--	60.32	109.68
LNA-A, C, G, T	46.61	54.84	109.68
Spacer C3	--	54.84	164.52
Spacer C12	--	60.32	180.97
Spacer C18 (HEG)	--	54.84	164.52
dSpacer (abasic site)	--	60.32	164.52

Other modifiers (Alkyne-dT, N6-Methyl-dA, 5-Brom-dU, 5-Hydroxymethyl-dC, Amino-dT, different spacers etc.) upon request

¹ Price includes only the corresponding modification whereas costs per base and a possible purification are not included. Please request an offer if you have a volume order (>10 modifications of same type per one single order). ² 3'-Deoxy-A or dA, dC, dG and dT is functional equivalent to 2'3' Dideoxy A/G/C/T.

Dark Quencher

Item	0.04 μmol scale	0.2 μmol scale	1.0 μmol scale
3' BHQ-1	72.39	72.39	214.19
3' BHQ-2	--	72.39	214.19
Internal Quencher 500	--	51.61	96.77
3' Dabcyl	--	72.39	214.19

Non-Fluorescent Modifications

Item	0.04 μmol scale ¹	0.2 μmol scale ¹	1.0 μmol scale ¹
5' Amino (C6)	15.48	15.48	32.26
3' Amino (C6 or C7) ²	--	25.81	45.16
3' Alkyne (Click Chemistry)	--	90.97	272.90
5' Azide (Click Chemistry)	--	90.97	272.90
3' Azide (Click Chemistry)	--	90.97	272.90
5' Biotin (C6)	28.39	28.39	63.23
3' Biotin (TEG)	--	30.97	54.19
3' Cholesterol	--	154.84	309.68
5' Digoxigenin	--	92.26	338.06
3' Digoxigenin	--	95.48	349.68
Digoxigenin-dT	--	152.90	458.71
5' DBCO (Click Chemistry)	--	118.07	354.19
5' Hexynyl (Click Chemistry)	--	61.16	183.48
Inverted dA, dC, dG, dT	--	24.84	74.51
5' Phosphorylation	22.58	22.58	51.61
3' Phosphorylation	--	25.81	77.42
5' Thiol (C6)	--	63.22	175.48
3' Thiol (C3)	--	72.90	219.36
3' N-Acetylgalactosamine (GalNAc)	--	201.29	461.29

¹ Price includes only the corresponding modification whereas costs per base and a possible purification are not included. Please request an offer if you have a volume order (>10 modifications of same type per one single order). ² 3' Aminolink C7 is used for oligos >50 bases.

Fluorescent Modifications

Item	0.04 μmol scale ¹	0.2 μmol scale ¹	1.0 μmol scale ¹
5' AlexaFluor 350/430	--	72.00	235.61
3' AlexaFluor 350/430	--	82.84	224.52
5' ATTO 425/488/532/550/565/590/620/647N	61.94	92.26	276.77
3' ATTO 425/488/532/550/590/565/620/647N	--	101.94	305.81
5' Cy3 and Cy5	37.61	48.97	121.29
5' Cy5.5	72.39	81.61	143.22
5' and 3' Cy7	127.03	189.49	416.58
3' Cy3 and Cy5	--	53.55	150.32
3' Cy5.5	--	91.55	233.55
5' Dyomics 510XL/530/630/681/781	56.77	87.10	261.29
3' Dyomics 510XL/530/630/681/781	--	96.77	290.32
5' FAM (Fluorescein), HEX, TET	30.97	37.61	66.45
3' FAM (Fluorescein)	--	35.49	96.77
5' JOE, TAMRA, ROX	--	62.45	192.26
3' JOE, TAMRA, ROX	--	72.39	214.19
ROX-dT	--	145.81	437.42
TAMRA-dT	--	118.06	354.19
5' Texas Red	--	92.26	276.77
5' Yakima Yellow	--	101.49	276.77

¹ Price per corresponding modification (costs per base and a possible purification are not included). Please request an offer if you have a volume order (>10 modifications of same type per one single order). Other 3'- or 5'-AlexaFluor-, ATTO- or Dyomics dyes are available (price on request).

Dual-labeled Fluorescent Probes¹ [Fixed Prices, no Additional Costs]

Item	0.04 μmol scale	0.2 μmol scale	1.0 μmol scale
5' Alexa350 – 3' Dabcyl	--	177.42	590.32
5' Alexa350 – 3' BHQ-1	--	177.42	483.87
5' ATTO425 – 3' BHQ-1	--	177.42	590.32
5' ATTO488 – 3' BHQ-1	--	177.42	590.32
5' ATTO532 – 3' BHQ-1	--	177.42	590.32
5' ATTO550 – 3' BHQ-2	--	177.42	483.87
5' ATTO620 – 3' BHQ-2	--	177.42	590.32
5' ATTO647N – 3' BHQ-2	--	212.90	590.32
5' Cy3 – 3' BHQ-2	--	177.42	483.87
5' Cy5 – 3' BHQ-2	--	177.42	483.87
5' Cy5.5 – 3' BHQ-2	--	212.90	483.87
5' Dyomics681 – 3' BHQ-2	--	177.42	590.32
5' FAM – 3' BHQ-1	99.00	145.16	483.87
5' FAM – 3' TAMRA	99.00	145.16	483.87
5' HEX – 3' BHQ-1	--	145.16	483.87
5' HEX – 3' TAMRA	--	145.16	483.87
5' JOE – 3' BHQ-1	--	145.16	483.87
5' ROX – 3' BHQ-2	--	177.42	483.87
5' TAMRA – 3' BHQ-2	--	177.42	483.87
5' TET – 3' BHQ-1	--	145.16	483.87
5' TET – 3' TAMRA	--	177.42	483.87
5' Texas Red – 3' BHQ2	--	212.90	483.87
5' Yakima Yellow – 3' TAMRA	--	212.90	590.32
5' Yakima Yellow – 3' BHQ-1	--	212.90	590.32
Affinity Enhancing Bases ²	--	See last table on page 1	

¹ Please ask for other 5' AlexaFluor-, ATTO- or Dyomics-Dyes. ² Affinity enhancing bases are alternatives to MGB probes.

MGB Probes [Fixed Prices, no Additional Costs]

Item	0.04 μmol scale	0.2 μmol scale	1.0 μmol scale
5' FAM – 3' MGB-Q500	195.00	290.00	530.00
5' FAM – 3' MGB-Q530	235.00	355.00	650.00
5' JOE – 3' MGB-Q530	360.00	420.00	715.00
5' HEX – 3' MGB-Q530	360.00	420.00	715.00
5' Yakima Yellow – 3' MGB-Q530	360.00	420.00	715.00

Large Volume Orders

DNA Oligos — Large-Volume Orders

Volume order means ≥ 50 oligos or ≥ 10 modifications (same type) per one single order. Please get in contact with us and request your offer.

DNA Oligos — 1-Year Subscription Orders

Your annual volume/need is ≥ 100 oligonucleotides? And you are prepared to purchase a certain amount of oligos within a 1-year period? If the answer for both questions is yes, please get in contact with us and request your individual quote. Discounts $\geq 20\%$ are possible.

Important – Please Note!

To benefit from large volume discounts, please get in contact with us and request your offer.

RNA Oligonucleotides

Standard Synthesis

RNA Synthesis [Single Strand RNA, Desalted]

Synthesis Scale	Price per Base	Synthesis Scale	Price per Base
Genomics (96-well plate)	On request	0.2 µmol	7.10
0.04 µmol	5.35	1.0 µmol	16.19
15 µmol	90.00		

siRNAs [Desalted; already Annealed]

Synthesis Scale	Item	Price per siRNA Duplex
Genomics (96-well plate)	siRNA Duplex (2x21mer)	On request
0.04 µmol	siRNA Duplex (2x21mer)	153.55
0.2 µmol	siRNA Duplex (2x21mer)	209.68
	Non-dTdT 3' overhang	6.45 (price per strand)
0.04 µmol	Longer siRNA Duplex 22-27bp	4.52 (price per additional base)
0.2 µmol	Longer siRNA Duplex 22-27bp	5.81 (price per additional base)

Price for 5', 3' Fluorescent, Non-fluorescent, Internal Modifications as well as for Purifications

Please see page 1 to 3. Prices are the same as for DNA oligonucleotides.

Large Volume Orders

RNA and siRNA Oligos — Large-Volume Orders

Volume order means ≥20 RNA oligos or ≥12 siRNAs per one single order. Please get in contact with us and request your offer.

Important – Please Note!

To benefit from large volume discounts, please contact us and request your offer.

Special Synthesis

DNA Oligos for NGS Applications

Optimized production processes ensure suitable purity and low levels of cross contamination. Please get in contact with us and request your offer.

Antisense Oligonucleotides

Item	Price per Base	Item	Price per Base
Phosphorothioate 0.04/0.2 µmol	2.39*	2'-O-methyl-RNA 15 µmol	41.94
Phosphorothioate 1.0 µmol	3.16*	2'-MOE-RNA 0.04 µmol	14.00
Phosphorothioate 15.0 µmol	6.58*	2'-MOE-RNA 0.2 µmol	25.81
2'-O-methyl-RNA 0.04 µmol	7.10	2'-MOE-RNA 1.0 µmol	38.71
2'-O-methyl-RNA 0.2 µmol	8.39	2'-MOE-RNA 15.0 µmol	89.03
2'-O-methyl-RNA 1.0 µmol	16.13		

* Price per bond (price for nucleotides not included)

Shipment

Estimated Production Times (Working Days)

Item	Desalted	HPLC	HPLC & Dialysis	PAGE
DNA Genomics	24 hrs	-	-	-
DNA 0.04 µmol	1	2	-	2
DNA 0.2 µmol	1	2	3	2
DNA 1.0 µmol	1	2	3	2
DNA 15.0 µmol	2	3	4	-
Modified DNA 0.04 & 0.2 µmol ¹	3	5	6	3
RNA 0.04 & 0.2 µmol ¹	4	5	6	5
siRNA 0.04 & 0.2 µmol ¹	4	5	On request	3
qPCR Probes 0.04 & 0.2 µmol ¹	-	3		

¹ Production times of larger scales on request

Sanger DNA Sequencing

Single Tube Services

Economy Run¹

Item	Price per Reaction	Total Price
Economy Run ¹ (≥50 Prepaid Labels)	5.90	295.00 (50 labels)
Economy Run ¹ (≥250 Prepaid Labels)	5.60	1'400.00 (250 labels)
Economy Run ¹ (≥500 Prepaid Labels)	5.00	2'500.00 (500 labels)
Economy Run ¹ (≥1'000 Prepaid Labels)	On request	
Economy Run ²	11.61	
PCR Purification Economy Run	2.90	

¹ Only a multiple of 50 prepaid labels can be ordered.

² Non-prepaid service; sample stickers can be requested in the webshop.

Ecoli NightSeq[®]

Item	Price per Reaction	Total Price
Ecoli NightSeq ^{®1} (≥50 Prepaid Labels)	9.90	495.00
Ecoli NightSeq ^{®2}	15.00	15.00

¹ Only a multiple of 50 prepaid labels and tubes prefilled with culture medium can be ordered.

² Non-prepaid service. Tubes prefilled with culture medium and sample stickers can be ordered in the webshop.

Premium Run

Item	Price per Reaction
Premium Run	18.06
Set up (In Case of Poor DNA or Primer)	9.03
Editing of Premium Run Reactions (Visual Inspection)	3.23
One-Drop Sequencing	7.74
Single Plasmid Preparation from <i>E. coli</i> for Sequencing	5.81

Plate Services

Economy Run Plus [Plasmid Isolation from *E. coli* or PCR Purification Included]

Item	Price per Reaction ¹	Price per Plate
Economy Run Plus (<5 Prepaid Plate Labels)	3.40	326.40
Economy Run Plus (≥5 Prepaid Plate Labels)	3.20	307.40
Economy Run Plus (≥10 Prepaid Plate Labels)	3.00	288.00
Economy Run Plus (≥20 Prepaid Plate Labels)	On request	

¹ Provided that all 96 wells are filled. Price per plate is charged, even if the plate is only partially filled.

Economy Run

Item	Price per Reaction	Price per Plate
Economy Run (<5 Prepaid Plate Labels) ¹	3.00 ²	288.00
Economy Run (≥5 Prepaid Plate Labels) ¹	2.90 ²	278.40
Economy Run (≥10 Prepaid Plate Labels) ¹	2.80 ²	268.80
Economy Run (≥ 20 Prepaid Plate Labels) ¹	On request	On request
Economy Run (≥25 Reactions per Plate) ³	3.91	-
Economy Run (≤24 Reactions per Plate) ³	-	93.84

¹ Samples are purified plasmids or PCR products; cannot be combined with plasmid isolation from *E. coli* or PCR purification.

² Provided that all 96 wells are filled. Price per plate is charged, even if the plate is only partially filled.

³ Non-prepaid plate service with flat fee up to 24 reactions per plate and with cost calculation per reaction for higher reaction numbers.

Complementary Services for Economy Run Plate Service

Item	Price
Plasmid Isolation from <i>E. coli</i> or PCR Purification	
≥25 Purifications per Plate	1.29 per Purification
≤24 Purifications per Plate (Flat Rate)	30.96 per Plate
Titration and Plating Libraries on Agar Plates (130-170 Clones per Plate)	
1 or 2 Libraries per Order (Max. 4 Plates per Library)	250.00 / Library
Colony Picking from Agar Plates, Arraying into 96-well LB-Growth Media Plates	0.70 / Clone
Return Delivery of Plasmids	64.52 / Plate

Ecoli NightSeq®

Item	Price per Reaction	Price per Plate
Ecoli NightSeq® (<5 Prepaid Plate Labels)	6.40 ¹	614.40
Ecoli NightSeq® (≥25 Reactions per Plate) ²	8.00	-
Ecoli NightSeq® (≤24 Reactions per Plate) ²	-	192.00

¹ Provided that all 96 wells are filled. Price per plate is charged, even if the plate is only partially filled.

² Non-prepaid plate service with flat fee up to 24 reactions per plate and with cost calculation per reaction for higher reaction numbers.

Ready-to-Load Run¹

Item	Price per Plate
Ready-to-Load Run	127.06

¹ Samples delivered dissolved in water or formamide.

Advanced Services

Primer Walking [DNA Purification and Primer Design & Synthesis Included]

Item	Price per Base
Primer Walking (Assembled, One Strand)	0.12
Primer Walking (Assembled, Both Strands, Publication Quality, >99.99%) ¹	0.22

¹ Mutation report included if a reference sequence is available.

GMP Sequencing¹

Item	Price per Base
GMP-Compliant 2-Fold Sequencing	0.29
GMP-Compliant 4-Fold Sequencing	0.48
Item	Price per Report
GMP Reporting	900.00

¹ Our Sanger sequencing process is certified by Swissmedic for GMP compliance. The GMP sequencing services can only be ordered with GMP reporting.

Additional Services

Item	Price
Single PCR Purification	5.81
Sequencing Primer	4.50
Primer Design Including Synthesis	16.13
Sequencing of BAC, Genomic DNA, Cosmid, PAC, Fosmid (Price per Reaction)	30.97
Plasmid Isolation from <i>E. coli</i> at Yields of 20 – 100 µg per Clone	80.00
<i>E. Coli</i> Overnight Cultivation and Alkaline Extraction of Plasmid DNA (96-Well Format)	200.00

Next Generation Sequencing

The access as well as the smart interplay of current state-of-the art sequencing technologies on the market (Illumina MiSeq, NextSeq and NovaSeq, PacBio, ONT) along with advanced bioinformatics services puts us into the position to cover all common sequencing applications. In the following you will find a selection of our most popular services.

Genome Sequencing and Bioinformatics Services

Item	Price
De Novo and Resequencing of Plasmids and BACs	On request
De Novo and Resequencing of Bacterial and Fungal Genomes	On request
Resequencing of Higher Eukaryotic Genomes	On request
De Novo Sequencing	On request
Shotgun Metagenomics	On request
MLST Analysis	On request

Transcriptome Sequencing and Bioinformatics Services

Item	Price
RNA Sequencing/Differential Gene Expression Analysis	On request
Reference Transcriptome Generation	On request
Small RNA Analysis	On request
Shotgun Metatranscriptomics	On request

Targeted Sequencing and Bioinformatics Services

Item	Price
16S rDNA Analysis	On request
Amplicon Deep Sequencing	On request
ITS Analysis	On request
CRISPR/Cas9 Sequencing	On request
ChIP Sequencing	On request
Custom Marker System Analysis	On request
Whole Exome Sequencing	On request

Complementary Services

Item	Price
Customized Amplicon Sequencing	On request
Library Service	On request
Ready-to-Load Sequencing	On request
Bioinformatics Only	On request

Interested in outsourcing your sequencing project to Microsynth? Contact us and to request your individual quote.

Quantitative PCR

Customized qPCR/dPCR Assays

Item	Price per Assay
1 Primer-Probe Set Including Functionality Testing	625.00
1 SYBR-Green Assay Including Functionality Testing	625.00
1 Droplet Digital PCR Assay Including Functionality Testing	900.00
1 Duplex Primer-Probe Set Including Functionality Testing	On request
1 Triplex Primer-Probe Set Including Functionality Testing	On request
1 SNP Real-Time Duplex Assay Including Functionality Testing	On request
1 Duplex Digital PCR assay including functionality testing	1318.00
1 Triplex Digital PCR assay including functionality testing	On request

Multiplex qPCR Assays for Advanced Food Testing

Item	Price per Assay
Allergen-Specific Assays (AllAll A, AllAll G Etc.) – 100 Reactions	220.00
Species-Specific Assays (AllMeat, AllHorse Etc.) – 100 Reactions	220.00
GMO-Specific Assays (AllSoyA, AllGVOScB Etc.) – 100 Reactions	220.00
Microorganism-Specific Assays (AllBakA IPC, AllCamp Etc.) – 100 Reactions	220.00

Multiplex Digital PCR Assays for Advanced Food Testing

Item	Price
Species-Specific Assays (dNoBA) – 96 Reactions	220.00
Species-Specific Assays (dBePo, dMarzipan) – 96 Reactions	220.00

Real-Time PCR and dPCR Analysis of Your Sample Material

Item	Price
qPCR Analysis of DNA (Per Reaction and Assay)	2.30 ¹
One-Step RT-qPCR of RNA (Per Reaction and Assay)	4.97 ¹
dPCR Analysis (Per Reaction and Assay)	15.50 ²

¹ Provided that complete 384-well plate is analyzed. Price will be adjusted according to the actual number of PCR reactions.

² Provided that complete 96-well plate is analyzed. Price will be adjusted according to the actual number of PCR reactions.

Microsynth is offering many other services involving real-time and digital PCR. Interested? Then do not hesitate to visit our website and/or to request your individual quote.

Genotyping

Human Cell Line Authentication by STR Analysis

Item	Price per Cell Line
Human Cell Line Authentication	105.00
Mouse Cell Line Authentication	130.00
Cell Line Authentication (Rat, Dog, Hamster)	165.00
Species Identification Testing	105.00
Database Comparison	35.00
Mycoplasma Testing	35.00
Mycoplasma Testing (commercial qPCR)	110.00
Microsatellite Instability Monitoring (Human or Mouse)	45.00

Fragment Length Analysis (FLA)

Item	Price
FLA (Ready-to-Load, 1-24 Samples)	57.50
FLA (Ready-to-Load, 25-48 Samples)	125.00
FLA (Ready-to-Load, 49-96 Samples)	182.31
FLA (PCR Labeled Products, 1-24 Samples)	71.88
FLA (PCR Labeled Products, 25-48 Samples)	151.06
FLA (PCR Labeled Products, 49-96 Samples)	229.19
FLA (Reporting, 1-24 Samples)	57.50
FLA (Reporting, 25-48 Samples)	93.75
FLA (Reporting, 49-96 Samples)	151.05
FLA - Plates and Strip Caps (Ready-to-Load, 10 Units)	57.29

Microsynth is offering a variety of other services in Genotyping. Interested? Then do not hesitate to visit our website and/or to request your individual quote.

DNA/RNA Isolation

Microsynth looks back on more than 20 years of experience in DNA/RNA isolation from different and difficult matrices. Interested to learn more about our service in this area? Then do not hesitate to visit our website and/or to request your individual quote. Price of the DNA/RNA isolation is specific for the sample matrix, sample delivery form and requirements to the quality and quantity of the isolated nucleic acids. Do not hesitate to contact us with your specific demand and request your individual quote.

Sample Matrix	Description
Industry Products	
Organic and Inorganic Chemical Products	Powders, liquids, gels, complex and demanding chemical composition
Biotechnological Products	Robust validated methods fit for purpose
Drug Products	Raw material and finished products
Biological Fluids, Cells and Solid tissue	
Cell Culture	Animal, supernatants (viral)
Animal Soft Tissues & Cells	Liver, brain, lung, heart, kidney, spleen
Animal Hard Tissue	Bones, teeth, shells
Animal Integumentary System	Feathers, hair, fin, etc.
Body Fluids	Blood, lymphocytes, plasma, urine, mucus, cerebrospinal fluid, saliva
Fixed Tissue	FFPE and glass-slide samples
Medical Samples	Ichor, collections, and biobanks
Tough to Lyse	
Plants and Seeds	Fresh, dried and herbarial samples
Fungi	Mycelium, fruiting body
Culture	Fungal, bacterial, archeal, supernatants (phage)
Environmental Samples	Biofilm, fecal, scat, soil (clay, loam, aquifer sediments, potting soil, sand, sewer sludge, manure, compost, marine sediments), water
Plasmid DNA Purification	
<i>E. Coli</i>	Mini-, Midi-, Maxi-, Gigaprep scales/BAC, YAC, PAC plasmid
Yeast	Miniprep scale

Contract Research/Outsourcing

Microsynth has vast experience in running many different research projects for its customers including the development of new protocols. Successful projects in basic and preclinical research range from one-month projects to projects lasting several years. Experienced researchers with strong track records in microbiology, genomics, molecular biology, and bioinformatics help you to define the best strategy to address your research questions.

A broad portfolio of validated techniques and protocols is available at Microsynth. Professional project management expertise, high-throughput sample logistics and close interaction with the sponsor will ensure that each outsourced project is carried out cost-efficiently as well as completed in time.

Conditions

Microsynth's products are sold for research and laboratory use only and are not to be administered to humans or used for medical diagnostics. Prices exclude VAT and shipping costs and are subject to change without prior notice.