

New Lab Essential starter program

Quality Sigma-Aldrich® and Millipore® Molecular Biology Essentials from Merck

Merck offers a wide range of products for every step of your cloning workflow including products for amplification, transformation, purification, transfection and hybridization. Because many molecular biology workflows begin with nucleic acid purification or separation, we provide a complete range of DNA and RNA purification tools and PCR reagents. Whether your goal is to clone and express your gene of interest, sequence cDNA, or study epigenetic changes in disease, we have a range of comprehensive, off-the-shelf solutions to accelerate your discoveries.

See more at: SigmaAldrich.com/molecular-biology

We are the exclusive, single-source supplier of well-respected, high quality molecular reagents and kits from Roche.

Explore our Roche offering at: SigmaAldrich.com/roche

Molecular Biology Essentials

Cloning, Transformation, Plasmid Purification & Transfections

Cat. No.	Product Description	Check
Antibiotics		
A0166-25G	Ampicillin sodium salt, cell culture tested, BioReagent, powder	<input type="checkbox"/>
C1613-1ML	Carbenicillin, Ready Made Solution, 100 mg/mL in ethanol/water, 0.2 µm filtered	<input type="checkbox"/>
C0378-25G	Chloramphenicol	<input type="checkbox"/>
C1832-10MG	Cyclosporin A	<input type="checkbox"/>
D9891-25G	Doxycycline hyclate, ≥98% (TLC)	<input type="checkbox"/>
A1720-5G	G 418 disulfate salt, powder, BioReagent, suitable for cell culture	<input type="checkbox"/>
H3274-250MG	Hygromycin B from Streptomyces hygroscopicus, powder, cell culture tested tested	<input type="checkbox"/>
K1377-25G	Kanamycin sulfate from Streptomyces kanamyceticus, cell culture tested, powder	<input type="checkbox"/>
P8833-100MG	Puromycin dihydrochloride, powder, ≥98% (HPLC), suitable for cell culture	<input type="checkbox"/>
Cloning kit		
93121-017-1KT	CloneStable® Tube Kit	<input type="checkbox"/>
93021-001-1KT	DNASTable® Tube Kit	<input type="checkbox"/>
General Reagents		
M3148-25ML	2-Mercaptoethanol, BioReagent, 99% (GC/titration)	<input type="checkbox"/>
Y1003-500ML	2x YT medium, Liquid microbial growth medium	<input type="checkbox"/>
Y2627-1KG	2x YT medium, EZMix™ Powder microbial growth medium	<input type="checkbox"/>
I1625-10G	3-Indoleacrylic acid powder, IAA	<input type="checkbox"/>
B3408-25G	6-Benzylaminopurine, plant cell culture tested	<input type="checkbox"/>
A2056-25MG	Acetyl coenzyme A sodium salt, ≥93% (HPLC), powder	<input type="checkbox"/>
A6559-25UMO	Adenosine 5'-triphosphate disodium salt solution	<input type="checkbox"/>
A8311-50ML	Antifoam 204, aqueous emulsion for bacterial and mammalian systems	<input type="checkbox"/>
A8582-500G	Antifoam SE-15, aqueous emulsion for bacterial and mammalian systems	<input type="checkbox"/>
B3928-5ML	Blue White Screening reagent	<input type="checkbox"/>
L7658-1KG	LB Broth (Lennox), EZMix™ powder microbial growth medium	<input type="checkbox"/>
L3022-1KG	LB Broth (Lennox), powder	<input type="checkbox"/>
L7275-500TAB	LB Broth (Lennox), tablet	<input type="checkbox"/>
L2542-500ML	LB Broth (Miller), liquid	<input type="checkbox"/>
L3522-1KG	LB Broth (Miller), Powder	<input type="checkbox"/>

Cat. No.	Product Description	Check
General Reagents (continued)		
M6030-1KG	M9, Minimal Salts, 5X powder	<input type="checkbox"/>
S1797-10X5ML	SOC Medium, for use in transformation	<input type="checkbox"/>
S0389-500G	Sucrose for molecular biology, ≥99.5% (GC)	<input type="checkbox"/>
T3924-500ML	Trypsin-EDTA solution, 1 × 0.5 g porcine trypsin and 0.2 g EDTA • 4Na per liter of Hanks' Balanced Salt Solution with phenol red, sterile-filtered	<input type="checkbox"/>
YEAST1-1KT	Yeast Transformation Kit, reagents for introducing plasmid DNA into yeast	<input type="checkbox"/>
Plasmid Purification		
NA9604-1KT	GenElute™ HP 96-Well Plasmid Miniprep Kit	<input type="checkbox"/>
NA0800-1KT	GenElute™ HP Endotoxin-Free Plasmid Gigaprep Kit	<input type="checkbox"/>
NA0400-1KT	GenElute™ HP Endotoxin-Free Plasmid Maxiprep Kit	<input type="checkbox"/>
NA0410-1KT	GenElute™ HP Endotoxin-Free Plasmid Maxiprep Kit	<input type="checkbox"/>
NA0600-1KT	GenElute™ HP Endotoxin-Free Plasmid Megaprep Kit	<input type="checkbox"/>
NA0300-1KT	GenElute™ HP Plasmid Maxiprep Kit	<input type="checkbox"/>
NA0310-1KT	GenElute™ HP Plasmid Maxiprep Kit	<input type="checkbox"/>
NA0200-1KT	GenElute™ HP Plasmid Midiprep Kit	<input type="checkbox"/>
NA0150-1KT	GenElute™ HP Plasmid Miniprep Kit	<input type="checkbox"/>
NA0160-1KT	GenElute™ HP Plasmid Miniprep Kit	<input type="checkbox"/>
PLN350-1KT	GenElute™ Plasmid Miniprep Kit	<input type="checkbox"/>
PLN70-1KT	GenElute™ Plasmid Miniprep Kit	<input type="checkbox"/>
Transfection		
CAPHOS-1KT	Calcium Phosphate Transfection Kit	<input type="checkbox"/>
T0956-1ML	Universal Transfection Reagent, for transfecting common mammalian cell lines	<input type="checkbox"/>
11202375001	Roche - DOTAP Liposomal Transfection Reagent N-[1-(2,3-Dioleoyloxy)propyl]-N,N,N-trimethylammonium methyl-sulfate	<input type="checkbox"/>
6365787001	Roche - X-tremeGENE™ 9 DNA Transfection Reagent Polymer reagent for transfecting common cell lines	<input type="checkbox"/>
6365809001	Roche - X-tremeGENE™ 9 DNA Transfection Reagent Polymer reagent for transfecting common cell lines	<input type="checkbox"/>
6366236001	Roche - X-tremeGENE™ HP DNA Transfection Reagent High-performance polymer reagent for transfecting many cell lines	<input type="checkbox"/>
6366546001	Roche - X-tremeGENE™ HP DNA Transfection Reagent High-performance polymer reagent for transfecting many cell lines	<input type="checkbox"/>

Purification

Cat. No.	Product Description	Check
DNA and RNA Purification		
G1N9604-1KT	GenElute™ 96 Well Tissue Genomic DNA Purification Kit	<input type="checkbox"/>
NA2110-1KT	GenElute™ Bacterial Genomic DNA Miniprep Kit	<input type="checkbox"/>
NA2120-1KT	GenElute™ Bacterial Genomic DNA Miniprep Kit	<input type="checkbox"/>
NA2010-1KT	GenElute™ Blood Genomic DNA Miniprep Kit	<input type="checkbox"/>
G1N350-1KT	GenElute™ Mammalian Genomic DNA Miniprep Kit	<input type="checkbox"/>
G1N70-1KT	GenElute™ Mammalian Genomic DNA Miniprep Kit	<input type="checkbox"/>
RTN70-1KT	GenElute™ Mammalian Total RNA Miniprep Kit	<input type="checkbox"/>
MRN70-1KT	GenElute™ mRNA Miniprep Kit	<input type="checkbox"/>
G2N350-1KT	GenElute™ Plant Genomic DNA Miniprep Kit	<input type="checkbox"/>
G2N70-1KT	GenElute™ Plant Genomic DNA Miniprep Kit	<input type="checkbox"/>
SNC50-1KT	mirPremier™ microRNA Isolation Kit	<input type="checkbox"/>
R4533-100ML	RNAzol® RT	<input type="checkbox"/>
R4533-50ML	RNAzol® RT	<input type="checkbox"/>
STRN250-1KT	SPECTRUM PLANT TOTAL RNA KIT 250 PREP	<input type="checkbox"/>
T3934-100ML	TRI Reagent® LS, cell suspension, CSF or amniotic fluid	<input type="checkbox"/>
T9424-100ML	TRI Reagent®, For processing tissues and cultured cells	<input type="checkbox"/>
T9424-200ML	TRI Reagent®, For processing tissues and cultured cells	<input type="checkbox"/>
11667165001	Roche - TriPure™ Isolation Reagent	<input type="checkbox"/>
Extract-N-Amp		
XNAB2-1KT	Extract-N-Amp™ Blood PCR Kit	<input type="checkbox"/>
E3004-1.2ML	Extract-N-Amp™ PCR ReadyMix™	<input type="checkbox"/>
E3004-12ML	Extract-N-Amp™ PCR ReadyMix™	<input type="checkbox"/>
P8115-12ML	Extract-N-Amp™ PCR ReadyMix™ for Blood	<input type="checkbox"/>
XNAT2-1KT	Extract-N-Amp™ Tissue PCR Kit	<input type="checkbox"/>
XNAT2R-1KT	Extract-N-Amp™ Tissue PCR Kit	<input type="checkbox"/>
R4775-12ML	REExtract-N-Amp™ PCR ReadyMix™	<input type="checkbox"/>
XNAPR-1KT	REExtract-N-Amp™ Plant PCR Kit	<input type="checkbox"/>
XNAS-1KT	REExtract-N-Amp™ Seed PCR Kit	<input type="checkbox"/>
XNAT-100RXN	REExtract-N-Amp™ Tissue PCR Kit	<input type="checkbox"/>
Purification Post Reaction		
AMPD1-1KT	Amplification Grade Dnase I	<input type="checkbox"/>
D1947-48RXN	Diffinity RapidTip®, for PCR purification	<input type="checkbox"/>
D1947-96RXN	Diffinity RapidTip®, for PCR purification	<input type="checkbox"/>
D1947L-48RXN	Diffinity RapidTip®, for PCR purification, compatible with Rainin™ LTS pipettes	<input type="checkbox"/>
D1947L-96RXN	Diffinity RapidTip®, for PCR purification, compatible with Rainin™ LTS pipettes	<input type="checkbox"/>
D2947-48RXN	Diffinity RapidTip®2, for PCR purification with polymers removal	<input type="checkbox"/>
D2947-96RXN	Diffinity RapidTip®2, for PCR purification with polymers removal	<input type="checkbox"/>
D2947L-48RXN	Diffinity RapidTip®2, for PCR purification with polymers removal, compatible with Rainin™ LTS pipettes	<input type="checkbox"/>
D2947L-96RXN	Diffinity RapidTip®2, for PCR purification with polymers removal, compatible with Rainin™ LTS pipettes	<input type="checkbox"/>
PCR9604-1KT	GenElute™ 96 Well PCR Clean-Up Kit	<input type="checkbox"/>

Cat. No.	Product Description	Check
Purification Post Reaction (continued)		
56500-70EA	GenElute™ Agarose Spin Columns	<input type="checkbox"/>
NA1111-1KT	GenElute™ Gel Purification Kit	<input type="checkbox"/>
56501-70EA	GenElute™ Minus EtBr Spin Columns	<input type="checkbox"/>
NA1020-1KT	GenElute™ PCR Clean-Up Kit	<input type="checkbox"/>
DNASE10-1SET	On-Column DNase I Digestion Set for use with the GenElute Total RNA Kit	<input type="checkbox"/>
DNASE70-1SET	On-Column DNase I Digestion Set for use with the GenElute Total RNA Kit	<input type="checkbox"/>
R0901-100ML	RNAlater®, Tissue storage and RNA stabilization solution	<input type="checkbox"/>
R0901-500ML	RNAlater®, Tissue storage and RNA stabilization solution	<input type="checkbox"/>
R0901-5ML	RNAlater®, Tissue storage and RNA stabilization solution	<input type="checkbox"/>
R2020-250ML	RNAzseZAP®, Cleaning agent for removing RNase	<input type="checkbox"/>
R2020-6X250ML	RNAzseZAP®, Cleaning agent for removing RNase	<input type="checkbox"/>
S5059-70EA	SigmaSpin™ Sequencing Reaction Clean-Up Kit	<input type="checkbox"/>
UC9601-1KT	UltraClear™ Sequencing Reaction Clean-Up Kit	<input type="checkbox"/>
UC9604-1KT	UltraClear™ Sequencing Reaction Clean-Up Kit	<input type="checkbox"/>

Amplification

Cat. No.	Product Description	Check
General Reagents		
P2192-5ML	Buffer, (10X PCR Buffer) optimized for routine PCR with MgCl ₂ included	<input type="checkbox"/>
B0300-1VL	Betaine solution	<input type="checkbox"/>
B0300-5VL	Betaine solution	<input type="checkbox"/>
DNTPCA1-10UMOL	CleanAmp™ dNTP Mix for improved PCR	<input type="checkbox"/>
D7295-.5ML	Deoxynucleotide Mix, 10 mM	<input type="checkbox"/>
DNTP100-1KT	Deoxynucleotide Set, 100 mM (0.25 ml each of 100 mM dATP, dCTP, dGTP and dTTP)	<input type="checkbox"/>
DNTP100A-1KT	Deoxynucleotide Set, 100 mM (1.0 ml each of 100 mM dATP, dCTP, dGTP and dTTP)	<input type="checkbox"/>
M1028-100ML	Magnesium chloride solution	<input type="checkbox"/>
M5904-500ML	Mineral oil	<input type="checkbox"/>
11093070910	Roche - Biotin-16-dUTP	<input type="checkbox"/>
11096176001	Roche - Blocking Reagent For nucleic acid hybridization and detection	<input type="checkbox"/>
11969064001	Roche - Deoxynucleoside Triphosphate Set PCR Grade, sodium salt	<input type="checkbox"/>
12140306001	Roche - GC-RICH PCR System	<input type="checkbox"/>
4743784001	Roche - GC-RICH PCR System, dNTPack	<input type="checkbox"/>
11814362001	Roche - PCR Nucleotide Mix	<input type="checkbox"/>
Oligonucleotides – for more information, visit SigmaAldrich.com/life-science/custom-oligos		
DNA Oligos	various scales, purifications, and formatting options available	<input type="checkbox"/>
Modified oligos	Modified Oligos – more than 200 modifications available for ordering	<input type="checkbox"/>
Oligos in Plates	Oligos in Plates for High-Throughput Applications – variety of normalization and formatting options available in 96 well, 384 well, and mixed plates	<input type="checkbox"/>
qPCR Probes	qPCR Probes – probe types for all detection chemistries - Milligram Quantity (iScale Oligos™) – larger quantities for in vivo, high throughput and commercial projects	<input type="checkbox"/>
KiCqStart® Primers	KiCqStart® Primers – pre-designed SYBR® Green primers, ready-to-use for gene expression analysis	<input type="checkbox"/>
PCR Reagents		
D8187-250UN	JumpStart™ REDTaq® DNA Polymerase	<input type="checkbox"/>
P0982-100RXN	JumpStart™ REDTaq® ReadyMix™	<input type="checkbox"/>
P1107-100RXN	JumpStart™ REDTaq® ReadyMix™ for High Throughput PCR	<input type="checkbox"/>
D4184-250UN	JumpStart™ Taq DNA Polymerase without MgCl ₂	<input type="checkbox"/>
P2893-100RXN	JumpStart™ Taq ReadyMix™	<input type="checkbox"/>
D9307-1.5KU	JumpStart™ Taq DNA Polymerase	<input type="checkbox"/>
D9307-250UN	JumpStart™ Taq DNA Polymerase	<input type="checkbox"/>
M1302-40KU	M-MLV Reverse Transcriptase	<input type="checkbox"/>
R2523-100RXN	REDTaq® ReadyMix™ PCR Reaction Mix	<input type="checkbox"/>
D4309-250UN	REDTaq® DNA Polymerase	<input type="checkbox"/>
D8312-2.5KU	REDTaq® Genomic DNA Polymerase	<input type="checkbox"/>
D2812-1KU	REDTaq® Genomic DNA Polymerase without MgCl ₂	<input type="checkbox"/>
D1806-250UN	Taq DNA Polymerase	<input type="checkbox"/>
D4545-1.5KU	Taq DNA Polymerase without MgCl ₂	<input type="checkbox"/>
qPCR Reagents		
D7440-400RXN	JumpStart™ Taq ReadyMix™ for qPCR	<input type="checkbox"/>
KCQS07-500RXN	KiCqStart™ 1-Step Probe RT-qPCR Mix	<input type="checkbox"/>
KCQS08-500RXN	KiCqStart™ 1-Step Probe RT-qPCR Mix, Low ROX	<input type="checkbox"/>
KCQS09-500RXN	KiCqStart™ 1-Step Probe RT-qPCR Mix, ROX	<input type="checkbox"/>
KCQS04-250RXN	KiCqStart™ Probe qPCR ReadyMix	<input type="checkbox"/>
KCQS05-250RXN	KiCqStart™ Probe qPCR ReadyMix, Low ROX	<input type="checkbox"/>
KCQS06-250RXN	KiCqStart™ Probe qPCR ReadyMix, ROX	<input type="checkbox"/>
KCQS00-250RXN	KiCqStart™ SYBR Green qPCR ReadyMix	<input type="checkbox"/>
KCQS03-250RXN	KiCqStart™ SYBR Green qPCR ReadyMix, iQ	<input type="checkbox"/>
KCQS01-1250RXN	KiCqStart™ SYBR Green qPCR ReadyMix, Low ROX	<input type="checkbox"/>
KCQS02-250RXN	KiCqStart™ SYBR Green qPCR ReadyMix, ROX	<input type="checkbox"/>
QR0200-1KT	Quantitative RT-PCR ReadyMix™ for probe-based applications	<input type="checkbox"/>
S9194-400RXN	SYBR® Green JumpStart™ Taq ReadyMix™ for High Throughput qPCR (with RefDye)	<input type="checkbox"/>
S4438-500RXN	SYBR® Green JumpStart™ Taq ReadyMix™ for qPCR	<input type="checkbox"/>
S1816-100RXN	SYBR® Green JumpStart™ Taq ReadyMix™ for qPCR, Capillary Formulation	<input type="checkbox"/>
S5193-400RXN	SYBR® Green JumpStart™ Taq ReadyMix™ without Magnesium Chloride	<input type="checkbox"/>
WTA2-50RXN	Complete Whole Transcriptome Amplification (WTA) Kit	<input type="checkbox"/>
WGA2-50RXN	GenomePlex® Complete Whole Genome Amplification Kit	<input type="checkbox"/>

Cat. No.	Product Description	Check
qPCR Reagents (continued)		
11732650001	Roche - Expand™ High Fidelity PCR System	<input type="checkbox"/>
11759078001	Roche - Expand™ High Fidelity PCR System	<input type="checkbox"/>
11681842001	Roche - Expand™ Long Template PCR System	<input type="checkbox"/>
11759060001	Roche - Expand™ Long Template PCR System	<input type="checkbox"/>
3553361001	Roche - FastStart™ High Fidelity PCR System	<input type="checkbox"/>
4738292001	Roche - FastStart™ High Fidelity PCR System, dNTPack	<input type="checkbox"/>
12032945001	Roche - FastStart™ Taq DNA Polymerase, 5 U/μl	<input type="checkbox"/>
12032953001	Roche - FastStart™ Taq DNA Polymerase, 5 U/μl	<input type="checkbox"/>
4738420001	Roche - FastStart™ Taq DNA Polymerase, dNTPack	<input type="checkbox"/>
12140314001	Roche - High Fidelity PCR Master	<input type="checkbox"/>
11636090910	Roche - PCR DIG Probe Synthesis Kit	<input type="checkbox"/>
11418432001	Roche - Taq DNA Polymerase, 5 U/μl	<input type="checkbox"/>
11435094001	Roche - Taq DNA Polymerase, 5 U/μl	<input type="checkbox"/>
4728858001	Roche - Taq DNA Polymerase, dNTPack 5 U/βl	<input type="checkbox"/>

Electrophoresis & Hybridization

Cat. No.	Product Description	Check
Agarose		
A9539-100G	Agarose, For molecular biology	<input type="checkbox"/>
A9539-500G	Agarose, For molecular biology	<input type="checkbox"/>
A4718-100G	Agarose, High resolution, for molecular biology	<input type="checkbox"/>
05073-50G	Agarose, for molecular biology, low gelling temperature	<input type="checkbox"/>
General Reagents		
A3678-100G	Ammonium persulfate, for electrophoresis, ≥98%	<input type="checkbox"/>
B4287-25G	BSA, Bovine Serum Albumin, for molecular biology	<input type="checkbox"/>
A3059-500G	BSA, heat shock fraction, protease free, essentially globulin free, pH 7, ≥98%	<input type="checkbox"/>
D7656-5X1ML	Deoxyribonucleic acid, single stranded from salmon testes	<input type="checkbox"/>
F2637-100G	Ficoll® 400	<input type="checkbox"/>
L9650-500G	Lithium chloride, for molecular biology, ≥99%	<input type="checkbox"/>
CMC0001-40X40UL	SIG10 Chemically Competent Cells for protein expression and DNA plasmid production	<input type="checkbox"/>
L3771-1KG	SDS, Sodium dodecyl sulfate, suitable for electrophoresis, molecular biology, ≥98.5%	<input type="checkbox"/>
L4509-500G	SDS, Sodium dodecyl sulfate, ReagentPlus®, ≥98.5% (GC)	<input type="checkbox"/>
T9281-50ML	TEMED, BioReagent, suitable for electrophoresis, ~99%	<input type="checkbox"/>
U5378-1KG	Urea, for molecular biology, ≥98%, powder	<input type="checkbox"/>
Kit DIG Labeling / Detection Kits		
11175025910	Roche - DIG RNA Labeling Kit (SP6/T7)	<input type="checkbox"/>
11277073910	Roche - DIG RNA Labeling Mix	<input type="checkbox"/>
11585614910	Roche - DIG-High Prime DNA Labeling and Detection Starter Kit II	<input type="checkbox"/>
11585762001	Roche - DIG Wash and Block Buffer Set	<input type="checkbox"/>
11603558001	Roche - DIG Easy Hyb™	<input type="checkbox"/>
11745832910	Roche - DIG-High Prime DNA Labeling and Detection Starter Kit I	<input type="checkbox"/>
Molecular Weight Markers		
D5042-250UG	124 bp Ladder	<input type="checkbox"/>
D0428-1VL	1kb Ladder	<input type="checkbox"/>
D3937-1VL	DirectLoad™ 1kb Ladder	<input type="checkbox"/>
D7058-1VL	DirectLoad™ Wide Range DNA Ladder	<input type="checkbox"/>
G7654-5ML	Gel Loading Solution, Type I	<input type="checkbox"/>
Stains & Dyes		
B5525-10G	Bromophenol Blue sodium salt, for electrophoresis	<input type="checkbox"/>
D9542-10MG	DAPI, for nucleic acid staining	<input type="checkbox"/>
D9542-50MG	DAPI, for nucleic acid staining	<input type="checkbox"/>
E1510-10ML	Ethidium bromide solution, BioReagent, for molecular biology,	<input type="checkbox"/>
E1385-5ML	Ethidium bromide solution, BioReagent, for molecular biology, 500 μg/mL in H ₂ O	<input type="checkbox"/>
M9140-25G	Methylene blue, certified by the Biological Stain Commission	<input type="checkbox"/>
Q1494-500UL	Nancy-520	<input type="checkbox"/>
X4126-10G	Xylene Cyanol FF	<input type="checkbox"/>

For more information regarding our biotechnology partner programs visit: SigmaAldrich.com/biotech-partner

To order visit: SigmaAldrich.com

