



Accelerate your innovation

OEM by QIAGEN

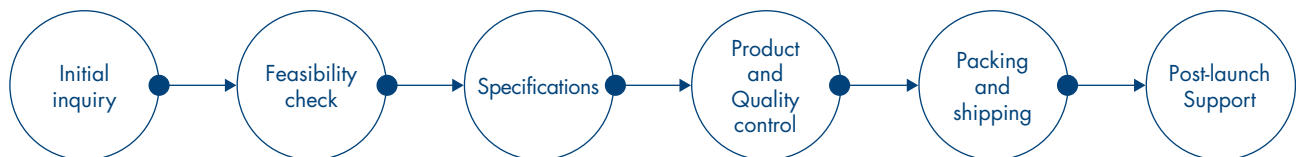
Sample to Insight





OEM by QIAGEN puts the components from the vast QIAGEN product range at your disposal; including enzymes, oligos, buffers, master mixes, DNA/RNA extraction technologies and more. If you're working on a breakthrough product and want to make sure you get to the market first, OEM by QIAGEN can help with tailored solutions and flexibility that may surprise you. From prototype to manufacturing, packaging and labeling, you can trust QIAGEN for a fast turnaround and full confidentiality.

Partnering to accelerate your time to market



Gain competitive advantage with OEM solutions – made your way



Confidentiality and partnership



Quality at scale



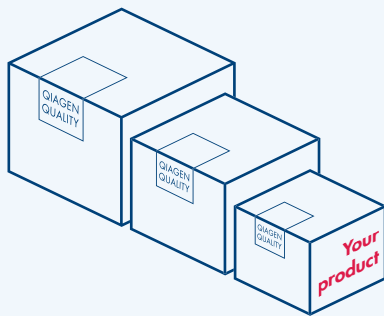
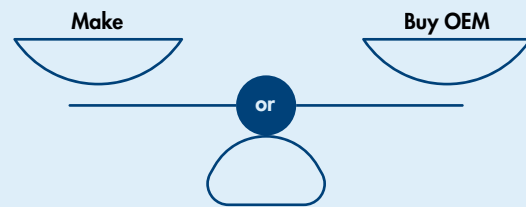
Innovation combined with expertise



Portfolio breadth and flexibility

Partnership and confidentiality

OEM by QIAGEN can help you make the right “make or buy” decisions for your assay development. You have a breakthrough idea and you need to get it to market fast. OEM solutions are an effective alternative to in-house development and manufacturing of the components and solutions you need. Contact us to discuss these topics in full confidentiality. Sharing knowledge, even within QIAGEN, only occurs on a need-to-know basis, so we can build a trusted partnership for years to come.

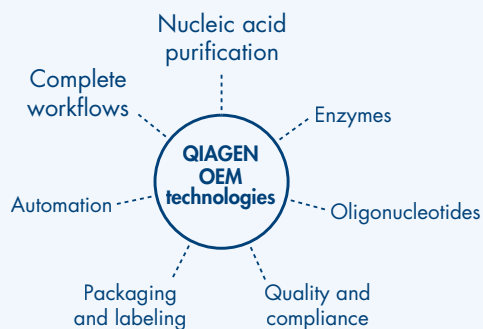
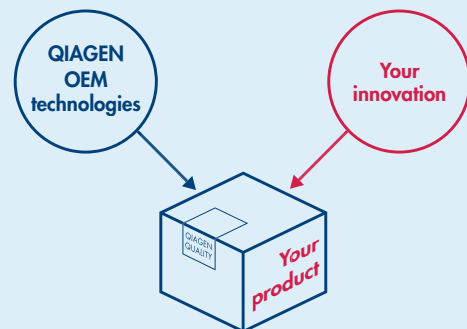


Quality at scale

OEM by QIAGEN ensures there is no compromise on quality when scaling up your production. From prototype to manufacturing, we provide you with high-quality OEM solutions at scale. With our outstanding quality control processes, GMP and ISO certification and manufacturing facilities and offices located all over the world, we offer global support and commercial excellence.

Innovation combined with expertise

At QIAGEN, we know kits. OEM by QIAGEN brings this expertise to you. Our high-quality track record and extensive know-how in research and development, regulatory environments, compliance procedures, production and distribution, enable you to accelerate your time to market, with reduced investments.



Portfolio breadth and flexibility

Spin columns, enzymes, oligos, buffers, instruments and much more are available as OEM solutions from QIAGEN, a market leader in its field. The OEM by QIAGEN offering is tailored to your needs. We can deliver individual components or produce entire workflows for you as a Contract Manufacturing Organisation (CMO) – you have the choice.

Nucleic acid purification

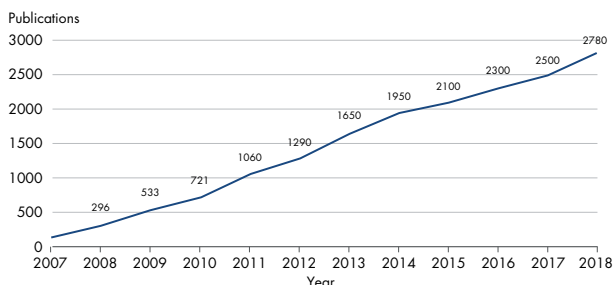
With OEM by QIAGEN you have the opportunity to deploy pioneering know-how in DNA and RNA purification for your innovation. You will achieve commercial excellence quickly, working with our established protocols, which ensure compliance. QIAGEN nucleic acid purification expertise is unprecedented in the market. With our OEM solutions, you can gain a competitive advantage with next-generation purification methods and automated processes, make the most of trusted chemistries for DNA and RNA sample processing.

From our DNA/RNA purification portfolio

Sample type	Isolation method
<ul style="list-style-type: none"> Human, animal or plant tissues Blood, urine and other body fluids FFPE Forensic specimen Circulating cell-free nucleic acid Microbiome in soil, water and stool ...and more. 	<ul style="list-style-type: none"> Spin column Magnetic beads Plate formats Manual or automated <ul style="list-style-type: none"> QIAcube Connect QIAcube HT EZ1 QIAasympthy

Work with the kit experts

With our track record of manufacturing high-quality kits, we are committed to turning your breakthroughs into valued products. We supply a huge variety of products to companies in life sciences, molecular diagnosis, applied testing (food), forensics, microbiome, among others. Customers around the world perceive QIAGEN as the gold standard in the field of nucleic acid purification. For example, more than 15,000 scientific publications cite using RNeasy Plus in research experiments. Our innovative kits can be used manually or automated with various instruments, depending on your regulatory and throughput requirements. Allow QIAGEN to be your trusted partner for developing and scaling solutions tailored to your needs – from Sample to Insight.



Number of publications according to Google Scholar, accumulating to more than 15,000.



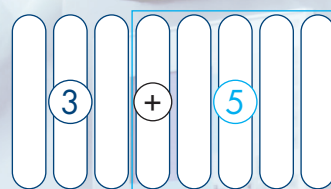
Enzymes

OEM by QIAGEN offers bulk production of a wide variety of enzymes for diverse molecular applications with unique features and adjusted filling volumes, to meet your requirements. Our manufacturing facilities include environmentally-controlled, purpose-built laboratory suites with restricted access. **Multi-column purification** processes on high-performance systems ensure quality and consistency; scalable processes ensure reproducibility when moving from small to large-volume production. We are proud to be a leading enzyme supplier to major NGS solution providers, worldwide.

Multi-column purification

Depending on the customer needs, enzyme characteristics and corresponding Standard Operating Procedures (SOPs), the purification process includes up to eight columns. This way, we achieve the utmost purity for downstream applications.

We supply GMP-grade ISO compliant enzymes, produced as solution, lyophilized, lyo-ready, or glycerol-free formulations

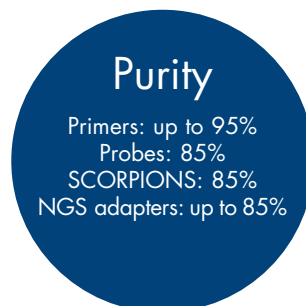


Types of enzymes	Applications (examples)	Products (examples)
DNA polymerases	qPCR, multiplex PCR, high fidelity PCR, GC-rich PCR, isothermal amplification, Next Generation Sequencing (NGS)	QuantiNova DNA Polymerase, Phoenix Hot-start Taq Polymerase, Taq-B DNA Polymerase, VeraSeq High-Fidelity DNA Polymerase, VeraSeq Ultra DNA Polymerase, Bst X DNA polymerase, Phi29 DNA Polymerase
RNA polymerases	In-vitro mRNA synthesis, RNA therapeutics	T7 RNA Polymerase, Poly(A) Polymerase
Reverse transcriptases	cDNA synthesis, RT-PCR, one-step qRT-PCR	OmniScript, Sensiscript, EnzScript™, M-MuLV Reverse Transcriptase, HotStaRT-Script
Ligases, DNA modifying enzymes-endo/exonucleases, glycosylases, Lyases	Cloning, restriction digest, NGS library prep, DNA repair prior to PCR	T4 DNA Ligase, T4 RNA Ligase 1, BamHI, BglIII, DpnI, EagI, EcoRI, EcoRV, Exonuclease I, III and Lambda Exonuclease
Binding proteins	Primer sequestering, enhancing cDNA synthesis, mutagenesis or affinity capture of cDNA	<i>E. coli</i> Single-Stranded DNA Binding Protein, T4 Gene 32 Protein, RecA
Other enzymes and enzyme mix	DNA/RNA seq, DNA library prep, single-cell RNAseq or SMART-type of RNAseq, NGS adapter ligation, 3' end labeling, phosphorylation of 5' ends prior to ligation	5X ER/A Tailing Enzyme Mix, WGS Ligase, 5X WGS Fragmentation Mix, Terminal Deoxynucleotidyl Transferase, T4 Polynucleotide Kinase

Oligonucleotides

QIAGEN oligonucleotides are produced using AIE-HPLC and RP-HPLC methods, resulting in a very high purity level. For molecular and in-vitro diagnostics applications, we manufacture premium quality oligonucleotides. Current customers are located all over the world and include many leading IVD companies.

Critical raw materials are tested and approved before use in production for lot-to-lot reproducibility. Synthesis processes are optimized and automated to meet the stringent requirements of the diagnostic field, including non-contamination guarantee for IVD-grade. QIAGEN is registered at FDA as an ASR manufacturer. Moreover, we work according to cGMP/QSR procedures, providing full traceability with extensive Production Batch Records.



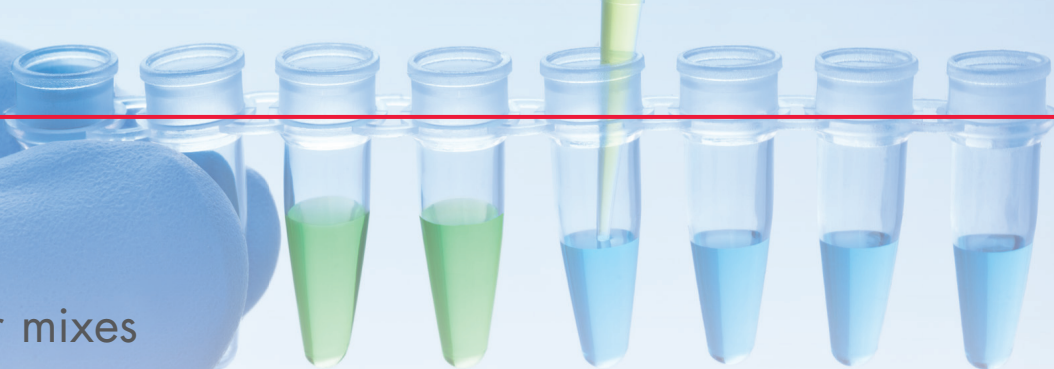
Oligonucleotides types and quality levels

	Development-LC	Development-HPLC	IVD	Fast track
Traceability	Partial	Partial	Full	None
Purification	LC	HPLC	HPLC	LC/HPLC
HPLC column	N/A	Non dedicated	Dedicated	Non dedicated
Cleanroom	Optional	Optional	Dedicated	None
Quality regulations	ISO9001 ISO13485	ISO9001 ISO13485	ISO9001 ISO13485 21 CFR Part 820 cGMP	ISO9001
QC control	Optional QC	Customized QC	In process, Final	Optional QC
Product release	Technical release	Technical release	QA release	Final QC
Documents provided	Simplified CoA	Simplified CoA	Full CoA	Compilation of results
Critical raw material control	Partial	Partial	Full	Partial
Environmental control	Yes	Yes	Yes	Yes
Manufacturing documents	Simplified Production Batch Record	Simplified Production Batch Record	Production Batch Record	None
Synthesis scale	0.15-60 µmol	1-60 µmol	1-60 µmol	0.04-0.1 µmol

From our oligonucleotides portfolio

Oligonucleotide categories	Unmodified oligonucleotides	Modified oligonucleotides
<ul style="list-style-type: none"> • Primers • Probes • SCORPIONS • Locked Nucleic Acid (LNA) • NGS Adapters 	<ul style="list-style-type: none"> • Unmodified oligonucleotides up to 170 bases • Homopolymers such as polyA and polyT 	<ul style="list-style-type: none"> • Fluorescent groups • Fluorescent groups combined with Quenchers • LNA® containing oligonucleotides • MGB-Eclipse® Dark Quencher • EBQ • Superbases • SuperA®, SuperG® and SuperT® • Biotin • Phosphate • Spacers • Amino • ... and more

PCR master mixes



Bringing a huge variety of kits to the market over the years, QIAGEN has vast experience in creating, validating and producing master mixes. From off-the-shelf to fully customized mixes, we can offer a variety of solutions tailored to your application. Our master mixes can be used in most commercially available instruments, for various applications such as PCR, qPCR, RT PCR, digital PCR, NGS, epigenetics and PCR array analysis. Furthermore, the delivered format can be adapted to your production needs. We produce GMP-grade PCR master mixes in solution, lyophilized, lyo-ready, or glycerol-free forms. Our smooth supply chain operations enable bulk deliveries, just in time, anywhere in the world. The innovative QuantiNova master mix products with unique pipetting-control features, demonstrate our ability and interest in driving innovation in every product, always.

From our ready-to-use master mixes portfolio

Types of PCR	Applications (examples)	Products (examples)
Qualitative end-point PCR	Genotyping PCR, genetic analysis, cloning, STR and microsatellite analysis	AllTaq Master Mix, AllTaq PCR Core Kits, QIAGEN Multiplex PCR/PCR plus Kits, UCP Multiplex PCR Kit, HotStarTaq Master mix Kits
	Long-range PCR	UltraRun Long Range PCR Kit
	HiFidelity PCR, NGS	UCP HiFidelity PCR Kit, HiFi PCR Master mix
	Microbial testing, microbiome/metagenome analysis, genotyping and genetic testing	UCP Multiplex PCR Kit, UCP HiFidelity PCR Kit
Quantitative real-time PCR	Gene Expression Analysis, two-step real-time PCR, real-time PCR arrays, digital PCR	QuantiNova SYBR® Green PCR Kit, QuantiNova Probe PCR Kit, UCP SYBR® Green PCR Kit, UCP Probe PCR Kit
	RT-PCR, one-step RT-PCR, Gene Expression Analysis	QuantiNova Pathogen Kit, QuantiNova Reverse Transcription Kit, QIAGEN One Step Ahead RT-PCR Kit, QuantiNova Multiplex RT-PCR Kit Omniscript, Sensiscript
	Multiplex PCR	QuantiNova Multiplex PCR Kit, QuantiNova Multiplex RT-PCR Kit
	Epigenetics, multiple displacement amplification analysis, DNA methylation analysis	EpiTect MethyLight PCR Kits

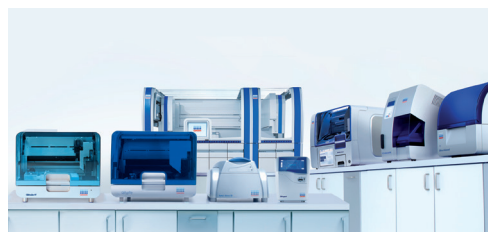


Buffers and reagents

OEM by QIAGEN provides bulk production of buffers, reagents and miscellaneous materials for your assay development, in varying filling volumes.

Instruments

QIAGEN is redefining the level and benefits of automation. You can have access not only to a wide variety of kits and components, but also to cutting-edge equipment that automates processes for standardization, reproducibility and increased research lab efficiencies.



OEM customization capabilities

Nucleic acid purification	Enzymes	Oligonucleotides	PCR Mastermix
Neutral packaging	Custom formulations	Formulation	Neutral packaging
Custom labeling	Enzyme concentrations	Buffer, MilliQ water, lyophilization	Custom labeling
Kitting	Buffer formulations	Aliquotation	Kitting
Components and reagents	Buffer additives	Bulk, mix and aliquots, plates	Components and reagents
Instruments	Customized master mix	Tube labelling	Lyophilized, lyo-ready, Glycerol-free formulations
Product validation and stability studies	Lyophilized, lyo-ready, glycerol-free	Customer or supplier label	
	Contract manufacture	Chemical stability studies	
	Process development	QC support	
	Process scale-up	Supermarket concept (SUMACO) offerings	
	Custom QC criteria		
	Custom processing		
	Protein engineering and design		
	Codon optimization		
	Site-directed mutagenesis		
	Proprietary expression vectors, fusion tags, cell strains and induction system		

To contact us directly, send an email to OEM-Sales@qiagen.com

For more information about OEM by QIAGEN, go to www.qiagen.com/oem

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual.

QIAcube Connect is designed to perform fully automated purification of nucleic acids and proteins in molecular biology applications. The system is intended for use by professional users trained in molecular biological techniques and the operation of QIAcube Connect.

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