

# Custom Oligonucleotides

## Custom Oligonucleotides from Sigma-Genosys

Sigma-Genosys offers a complete line of custom oligonucleotides for your research. Sigma-Genosys has manufacturing sites around the globe in 10 countries – Australia, Canada, France, Germany, India, Israel, Japan, Singapore, UK and USA. Our proprietary platforms, the Abacus™ and the ARK™, provide unparalleled throughput, capacity and quality resulting in affordable, high-quality oligos.

Sigma-Genosys is ISO 9001:2000 registered at our manufacturing sites in Canada, Germany, Israel, Japan and the USA. The UK manufacturing site is ISO 14001:1996 registered.

### Products and Services

- Standard DNA Synthesis and Purification
- Specialty Primers
- Long Oligos for Arrays
- Real-time PCR Probes
- Modified Oligos
- Oligos for High-Throughput Applications
- Gene Synthesis
- Oligo Design Service

### Features and Benefits

- Every oligo is bar-coded for efficient and accurate handling throughout the production process
- An additional vial label is included for your convenience
- Every oligo is deprotected and desalted
- 100% Quality Control using MALDI-TOF Mass Spectrometry, Electrospray Ionization Mass Spectrometry (ESI-MS), Capillary Electrophoresis (CE) or Polyacrylamide Gel Electrophoresis (PAGE)
- Quality Assurance documentation including molecular mass, sequence and yield is included with every order
- Shipping within 1–2 days for standard (non-modified) oligos
- Most modified oligos ship within 3-5 working days
- Online order tracking is available on our website
- Technical support staff can assist with oligo design and help to troubleshoot difficult assays

### Purity Levels and Guaranteed Minimum Yields\*

Purification Method	Recommended Applications	0.025 $\mu$ mole	0.05 $\mu$ mole	0.2 $\mu$ mole	1.0 $\mu$ mole	10 $\mu$ mole	15 $\mu$ mole
Desalting $\leq 35$ bases	PCR, probing, mobility shift, arbitrary 10-mer applications, hybridization	3 OD 90 $\mu$ g	5 OD 150 $\mu$ g	12 OD 360 $\mu$ g	40 OD 1,200 $\mu$ g	400 OD 12,000 $\mu$ g	600 OD 18,000 $\mu$ g
Cartridge (RPI) $\leq 50$ bases	All above applications, plus sequencing, DNA fingerprinting, cycle sequencing, RT-PCR, <i>in situ</i> hybridization, microsatellite polymorphisms	N/A N/A	1 OD 30 $\mu$ g	3 OD 90 $\mu$ g	12 OD 360 $\mu$ g	N/A N/A	N/A N/A
HPLC (RPI) $\leq 50$ bases	All above applications, plus mutagenesis, S-oligos, large-scales, antisense†, and triple helix†	N/A N/A	1 OD 30 $\mu$ g	2.5 OD 75 $\mu$ g	13 OD 390 $\mu$ g	130 OD 3,900 $\mu$ g	190 OD 5,700 $\mu$ g
PAGE $\leq 110$ bases	All above applications, plus gene synthesis and primer extension	N/A N/A	0.5 OD 15 $\mu$ g	1 OD 30 $\mu$ g	5 OD 150 $\mu$ g	N/A N/A	N/A N/A

\* Guarantee is for non-modified oligos  $\geq 20$  bases; yields for shorter oligos will be proportionally less.

S-oligos and other modified oligos will typically contain 30% and 40%, respectively, less yield than unmodified oligos.

† In combination with gel filtration.

## Real-time PCR Probes

Sigma-Genosys offers a complete line of real-time PCR chemistries. Our broad portfolio offers a variety of probe and primer options to suit your individual needs.

Our technical support team is also available to assist you with your probe and primer design. This service is offered free of charge to all Sigma-Genosys customers. Simply contact your local technical support office or complete the online request form for more information.

### Products and Services

- Dual-labeled Probes
- Molecular Beacons
- LightCycler® Probes
- Scorpions® Probes
- LNA™ Dual-labeled Probes
- LNA Molecular Beacons
- LNA LightCycler Probes
- Probe and Primer Design Services



### Features and Benefits

- Fully deprotected and desalted. Purified by PAGE or RP-HPLC
- 100% Quality Control using MALDI-TOF Mass Spectrometry, Polyacrylamide Gel Electrophoresis (PAGE) or RP-HPLC
- Every probe is delivered dried in amber tubes to ensure dye integrity
- Online order tracking is available on our website
- Our technical service team can assist with probe design

### Shipping Schedule

LightCycler probes:	4 to 5 working days
Dual-labeled fluorogenic probes:	5 to 6 working days
Molecular Beacons probes:	5 to 6 working days
Scorpions probes:	7 to 10 working days

### Custom Dual-Labeled Probe & Molecular Beacon Formats

Guaranteed OD Yield	Approximate No. of nmoles*	Approximate No. of Reactions**
1	5	1,000
3	15	3,000
5	25	5,000
10	50	10,000
50	250	50,000
100	500	100,000

\*1 OD = 5 nmoles = 30 µg for a 20-mer oligo. Nmole amount will vary based on oligo length

\*\*Number of reactions is based on a 25 µl reaction size, final probe concentration of 200 nM.

# Custom Oligonucleotides

## Customer/Technical Support

### United States/North America

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Internet orders may be submitted by visiting our website: [sigma.com/oligos](http://sigma.com/oligos)  
Online order tracking is available for orders placed through the Internet.

For details about how to order by fax or e-mail, please contact your local customer support team.