

OLIGO Synthesis



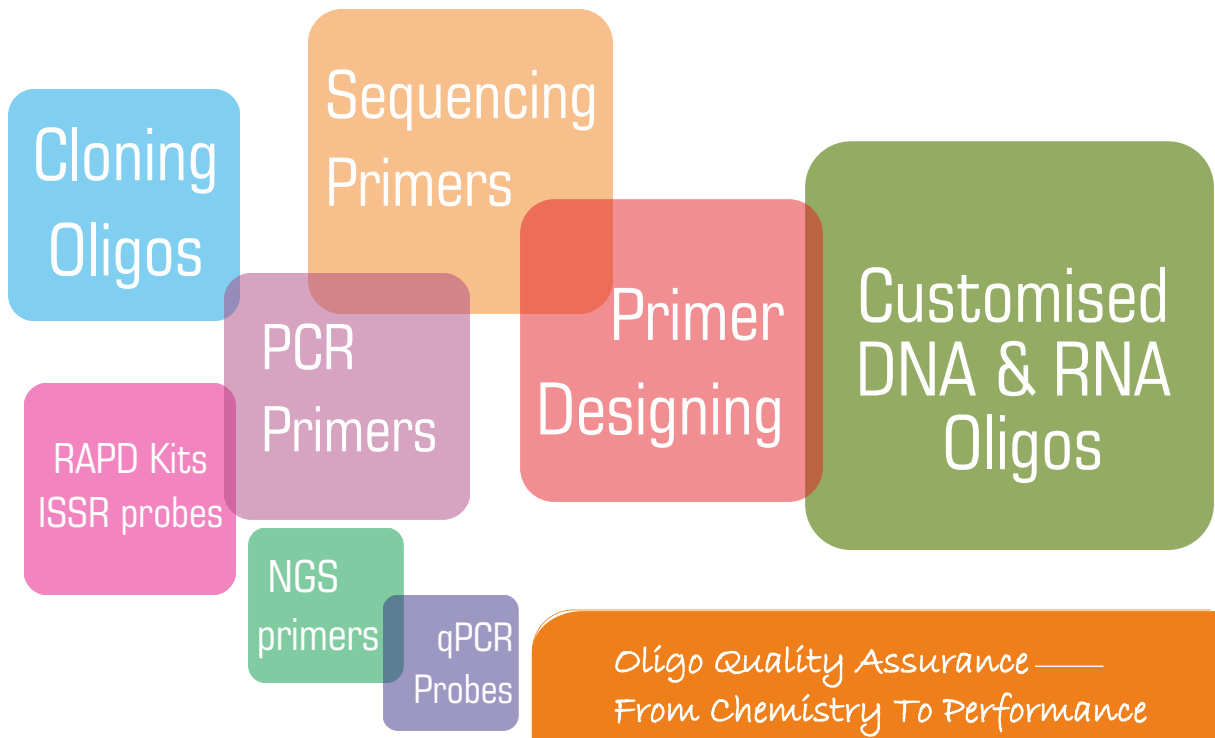
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Oligonucleotides



Is your research delayed because long wait time for oligos ???

Try our **Rapid oligos** service
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E-mail: oligo@gccbiotech.co.in

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* (15-30 mers, desalted , 25 or 50 nmol, order latest by 10.00 A.M IST, minimum 4 oligos per order, Service currently available in Kolkata City only Rs. 4/base extra charges & advance payment).

Oligonucleotides

Experience Advantage

With employees with over a decade of experience in oligo synthesis, you will always get best service & support tailor made for your unique requirement.

Quality Check of Incoming reagents

Most of the reagents used for oligo synthesis are manufactured in our own state of the art Chemistry lab. Few reagents are imported from reputed companies. All the reagents used for oligo synthesis undergo stringent quality check before use. In addition, all suppliers are regularly audited by us.

Process Control

Our oligonucleotides are produced in a highly automated synthesis facility. With the help of the best in the market automated Oligo Synthesizer and other high end related instruments, we are able to produce best quality oligos in very short time. All orders are given a unique order no. and all oligos a unique barcode no. which are used to track the oligos at all the process steps from order to shipment.

Quality Check of oligonucleotides

All the oligo batches undergo rigorous quality check by trityl check, absorbance, PAGE, PCR with universal primers, Sequencing with universal primers.

Performance Check

Measuring the performance of our oligos, is a crucial cornerstone in our quality assurance. Our oligos undergo rigorous in-house application analyses by PCR, DNA sequencing, NGS, real time PCR, DNA cloning etc.

Modified Custom Oligos

- 5' Modifications (Biotin, Thiol, Amino, 6-FAM, Cy5, Cy3, Phosphate etc.)
- Internal modifications (Inosine, FAM-dT etc.)
- 3' Modifications (BHQ, TAMRA, Biotin-TEG, Inosine, Cy5, Cy3 etc.)

Multiple purification options to choose from for your varied experiments

- Desalted
- Swift LC
- HPLC
- PAGE

Unmodified Custom Oligos

- Degenerate/wobble oligos
- Desalted
- Swift LC purified
- HPLC purified
- PAGE purified
- Oligos in Plate

Ready Made Oligos

- RAPD Kits
- UBC NAPS Unit Standard RAPD primers
- ISSR markers
- Universal primers

Oligo QC by

- Trityl Monitoring
- Absorbance Reading
- PAGE
- PCR with Universal primers
- Sequencing with Universal primers

Multiple Synthesis Scale options to best suit to your requirements

- 10 nmol
- 25 nmol
- 50 nmol
- 200 nmol
- 1000 nmol
- 10000 nmol



A. Basic synthesis(Per base Charges) for Desalted Oligo

Description	GC-1A	GC-01	GC-02	GC-03	GC-04	GC-05
Synthesis Scale Tubes	10 nmole	25 nmole	50 nmole	200 nmole	1000 nmole	10000 nmole
Price per base (₹)	16	18	25	38	90	825
Length (bases)	11-29	11-29	11-80	5-100	5-100	5-100
Minimum Yield (OD*)	1	2	3	10	35	250

*Approx. OD for 20 mer oligos

Minimum scale of synthesis for wobble / degenerate oligos is 50 nmol.

B. Oligo Purification charges (INR/oligo)

Purification	25 nmole	50 nmole	200 nmole	1000 nmole	10000 nmole
GC-06 HPLC	-	2000	3000	4800	POR
GC-07 PAGE	-	2900	3900	POR	POR
GC-08 Swift LC	700	700	1500	3200	POR

Note: For HPLC / PAGE / Swift LC oligos, Purification rates will be charged in addition to basic synthesis charge.

5' Modifications

Internal Modifications

Modification	50nmol	200nmol	1000nmol	Modification	50nmol	200nmol	1000nmol
Digoxigenin	16500	18500	28500	Internal Amino Modifier C6 dT	21600	27000	42000
Phosphate	3500	5000	8000	Internal Biotin-dT	29000	31000	48000
Biotin	5500	6800	10800	Fluorescein dT	29000	35000	48000
Thiol-C6	6200	7500	11500	C3 spacer	7000	9000	12600
Thiol-C3	6200	7500	11500	C6 spacer	7000	9000	12600
C12 spacer	6000	8000	13000	C12 spacer	7000	9000	12600
FAM	6000	8000	13000	Inosine	1200	1600	2900
TAMRA	11200	13400	28400	DeoxyUridine	2500	3500	5000
HEX	28000	30000	50000	Cy3	32000	40000	70000
TET	11000	13200	27600	Cy5	32000	40000	70000
Texas Red	11000	13200	27600	Cy3.5	36000	50000	76000
JOE	33000	37000	57000	Cy5.5	36000	50000	76000
ROX	33000	37000	57000	TamradT	44000	50000	70000
Cy5	28000	30000	50000	BHQ1dT	50000	55000	70000
Cy3	16000	20000	40000	BHQ2dT	50000	55000	70000
Cv5.5	16000	20000	40000	DabcyldT	50000	55000	70000
AlexaFluor 488	16000	20000	40000	Cy3 dA	50000	55000	84000
AlexaFluor 532	36000	40000	70000	Cy3 dC	50000	55000	84000
AlexaFluor 546	50000	55000	86000	Cy3 dG	50000	55000	84000
AlexaFluor 594	50000	55000	86000	Cy3 dT	45000	50000	70000
AlexaFluor 647	57600	65000	104000	Cy5 dA	50000	55000	84000
AlexaFluor 660	36000	40000	70000	Cy5 dC	50000	55000	84000
AlexaFluor 750	57600	65000	104000	Cy5 dG	50000	55000	84000
BHQ-2	57600	65000	104000	Cy5 dT	45000	50000	70000

3' Modifications

Modification	50nmol	200nmol	1000nmol
Digoxigenin	16500	18500	28500
C6 Amine	4500	8000	11400
Phosphate	5500	8000	11400
Biotin	10800	12000	20000
C3 spacer	7200	9000	13200
C6 spacer	7200	9000	13200
C12 spacer	7200	9000	13200
FAM	10000	12000	22000
TAMRA	15400	19200	27400
Thiol	14000	18000	26000
TexasRed	33000	37000	57000
JOE	33000	37000	57000
ROX	28000	30000	50000
Cy5	19000	23000	35000
Cy3	19000	23000	35000
Dabcyl	16000	20000	40000
BHQ1	16000	20000	40000
BHQ2	16000	20000	40000
Cholesteryl	16000	20000	48000
3'-Inverted dT	7600	10000	16000
3'-Inverted dA	7600	10000	16000
3'-Inverted dC	7600	10000	16000
3'-Inverted dG	7600	10000	16000
AlexaFluor 488	36000	40000	70000
AlexaFluor 532	50000	55000	86000
AlexaFluor 546	50000	55000	86000
AlexaFluor 594	57600	65000	10400
AlexaFluor 547	36000	55000	70000
AlexaFluor 660	57600	65000	104000
AlexaFluor 750	57600	65000	104000

Dual-labeled Probe

Modification	50nmol	200nmol	1000nmol
5'-FAM-3'-TAMRA	33000	46600	73000
5'-HEX-3'-TAMRA	33000	46600	73000
5'-TET-3'-TAMRA	33000	46600	73000
5'-JOE-3'-TAMRA	70000	80000	160000
5'-FAM-3'-BHQ1	35000	50000	75000
5'-HEX-3'-BHQ1	44000	63000	94000
5'-TET-3'-BHQ1	42000	59000	89000
5'-JOE-3'-BHQ1	70000	80000	120000
5'-TAMRA-3'-BHQ1	60000	70000	110000
5'-ROX-3'-BHQ1	55000	64000	104000
5'-Texas Red-3'-BHQ1	55000	64000	104000
5'-Cy3-3'-BHQ1	80000	90000	130000
5'-FAM-3'-BHQ2	35000	50000	75000
5'-HEX-3'-BHQ2	44000	63000	94000
5'-TET-3'-BHQ2	42000	59000	89000
5'-JOE-3'-BHQ2	70000	80000	120000

Despatch Schedule

Unmodified Desalted	2-3 Working Days
HPLC / PAGE	10 working days
Swift LC	4-5 working days
RAPD Primer Kits	4 working days
Modified Primer	21 working days

Primers for Fragment Analysis

Cat. #	Product	Pack Size	Price ₹
GABP-07	AFLP Primer	10,000 Picomol	21,950
GABP-08	AFLP Primer	80,000 Picomol	48,700
GABP-09	AFLP Primer	200,000 Picomol	65,900

Technical Information

Resuspension of Oligos

Oligonucleotides may be dissolved in water or in dilute buffers at or near pH 7.0. If non-buffered solution are to be prepared, and since laboratory distilled water is often slightly acidic, the pH of the water should be raised to pH 7.0 prior to dissolving the oligonucleotide. This may be accomplished by using a dilute sodium hydroxide or ammonia solution to adjust the pH of the water.

Storage of Oligos

Oligonucleotides as lyophilised powders are stable for years when stored at -20°C. They are less stable in solution but can be kept for several months if kept at -20°C in sterile water or dilute buffers at or near pH 7.0.

RAPD Primers

Oligos specifically developed for Random Amplified Polymorphic DNA (RAPD) analysis, RAPD is a technique used for DNA fingerprinting and genetic mapping, RAPD markers are single 10 mer oligonucleotides of arbitrary sequence, used as primers in PCR to amplify genomic DNA where the sequence of the DNA is completely unknown.

Product Specifications

100/20 predefined 10mer primers in every kit, Synthesis yields: 40D>, Primer length: 10 bases, available as single primers or complete kits, Delivery: lyophilised in tube format

UBC-NAPS Unit Standard Primers

Product	Pack Size	Price ₹
RAPD Primer Set #1	(4 OD/tube, 100 Primers)	64,700
RAPD Primer Set #2	(4 OD/tube, 100 Primers)	59,500
RAPD Primer Set #3	(4 OD/tube, 100 Primers)	59,500
RAPD Primer Set #4	(4 OD/tube, 100 Primers)	59,500
RAPD Primer Set #5	(4 OD/tube, 100 Primers)	59,500
RAPD Primer Set #6	(4 OD/tube, 100 Primers)	59,500
RAPD Primer Set #7	(4 OD/tube, 100 Primers)	59,500

Additional Services

Printout of synthesis report	FREE
Soft copy of synthesis report	FREE
Extra tube Labels	15 / Label
Wobbles with non-defined ratio	FREE
Amount adjustment in tubes	100 / oligo
Multiple Aliquoting in tubes	150 / aliquot
Mixing of oligos in one tube	100 / oligo

Price Rs. 7,525 (20 Oligo Set) / Rs. 395 Per Oligo

Kit-A		Kit-B		Kit-C		Kit-D	
Name	Sequence	Name	Sequence	Name	Sequence	Name	Sequence
GCA-01	CAGGCCCTTC	GCB-01	GTTTCGCTCC	GCC-01	TTCGAGCCAG	GCD-01	ACCGCGAAGG
GCA-02	TGCCGAGCTG	GCB-02	TGATCCCTGG	GCC-02	GTGAGGCGTC	GCD-02	GGACCCAACC
GCA-03	AGTCAGCCAC	GCB-03C	ATCCCCCTG	GCC-03	GGGGGTCTTT	GCD-03	GTCGCCGTCA
GCA-04	AATCGGGCTG	GCB-04	GGACTGGAGT	GCC-04	CCGCATCTAC	GCD04	TCTGGTGAGG
GCA-05	AGGGGTCTTG	GCB-05	TGCGCCCTTC	GCC-05	GATGACCGCC	GCD05	TGAGCGGACA
GCA-06	GGTCCCTGAC	GCB-06	TGCTCTGCCC	GCC-06	GAACGGACTC	GCD06	ACCTGAACGG
GCA-07	GAAACGGGTG	GCB-07	GGTGACGCAG	GCC-07	GTCCCGACGA	GCD07	TTGGCACGGG
GCA-08	GTGACGTAGG	GCB-08	GTCCACACGG	GCC-08	TGGACCGGTG	GCD-08	GTGTGCCCCA
GCA-09	GGGTAACGCC	GCB-09	TGGGGGACTC	GCC-09	CTCACCGTCC	GCD-09	CTCTGGAGAC
GCA-10	GTGATCGCAG	GCB-10	CTGCTGGGAC	GCC-10	TGTCTGGGTG	GCD-10	GGTCTACACC
GCA-11	CAATCGCCGT	GCB-11	GTAGACCCGT	GCC-11	AAAGTGCGG	GCD-11	AGCGCCATTG
GCA-12	TCGGCGATAG	GCB-12	CCTTGACGCA	GCC-12	TGTCATCCCC	GCD-12	CACCGTATCC
GCA-13	CAGCACCCAC	GCB-13	TTCCCCGCT	GCC-13	AAGCCTCGTC	GCD13	GGGGTGACGA
GCA-14	TCTGTGCTGG	GCB-14T	CCGCTCTGG	GCC-14	TGCGTGCTTG	GCD-14	CTTCCCCAAG
GCA-15	TTCCGAACCC	GCB-15	GGAGGGTGTT	GCC-15	GACGGATCAG	GCD-15	CATCCGTGCT
GCA-16	AGCCAGCGAA	GCB-16	TTTGCCCGGA	GCC-16	CACACTCCAG	GCD16	AGGGCGTAAG
GCA-17	GACCGTGTG	GCB-17	AGGGAACGAG	GCC-17	TTCCCCCAG	GCD-17	TTTCCCACGG
GCA-18	AGGTGACCGT	GCB-18	CCACAGCAGT	GCC-18	TGAGTGGGTG	GCD18	GAGAGCCAAC
GCA-19	CAAACGTCCG	GCB-19	ACCCCCGAAG	GCC-19	GTTGCCAGCC	GCD-19	TGGGGACTT
GCA-20	GTTGCGATCC	GCB-20	GGACCCTTAC	GCC-20	ACTTCGCCAC	GCD-20	ACCCGGTCAC