

Oligosure

Chemical Synthesis | Characterization
Purification | Performance Assurance



**Quick Synthesis &
Best-in-Class Quality**



Specifications

Synthesis Scales

0.2, 1.0, 2.0, 5.0, 10.0 & 20.0 μ mol

Purifications

Desalting, PAGE, HPLC

Characterization

LCMS, PAGE, Analytical HPLC

Sequence Lengths

10 – 60 bases (inquire for longer sequences)

Quantity

1 μ g to 1gm scale

Formats

Supplied Lyophilized or solution in tubes or 96 deep well plate (inquire for other)

State of art facility:

1. DNA Synthesizer
2. Prep HPLC
3. LCMS
4. Lyophilizer
5. UV-spectrophotometer/nanodrops

Modifications

Sugar modification

2'-Ome, LNA

Backbone modification

Phosphorothioate

3'/5' Fluorophore

FAM, HEX, TAMARA, ROX, BHQ-1, BHQ-2, Cy3, Cy5
(For Real-Time PCR)

5'/3' Tagging

GalNAc, Biotin

Base Modification

Inosine, 5'-Me Thymidine, 5'-Me Cytosine

Oligo Characterization and Quality Checks

-  Chemically synthesized oligo on automated oligo synthesizer
-  Synthesis monitor by trityl monitor
-  Quality and purity checks using HPLC and PAGE
-  Molecular mass analysis by LCMS
-  Yield calculations using absorbance

Oligo Purifications

-  Desalting
-  HPLC/PAGE
-  Liquid/Lyophilized
-  As Per Customized Requirement

Oligo Performance Check

-  Rigorous oligo performance checks using various in-house R&D applications such as RT-PCR, NGS, Sanger sequencing etc.

Product	Scale/Unit
8-60 base Oligonucleotide synthesis	50/200/1000nM
61-120 base Oligonucleotide synthesis	50/200/1000nM
Dual labelled probes- FAM/BHQ	50/200/1000nM
Dual labelled probes- HEX/BHQ	50/200/1000nM
Dual labelled probes- ROX/BHQ	50/200/1000nM
Dual labelled probes- TAMARA/BHQ	50/200/1000nM
Dual labelled probes- Cy3/BHQ	50/200/1000nM
Dual labelled probes- Cy5/BHQ	50/200/1000nM

Specifications

Synthesis Scales

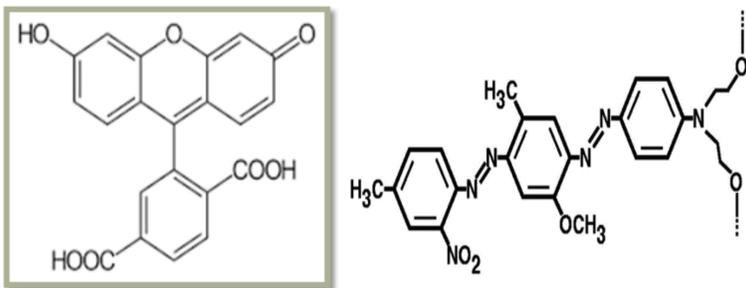
50, 200, 1000, 2000, 5000, 10000 & 20000 nmol

Purifications

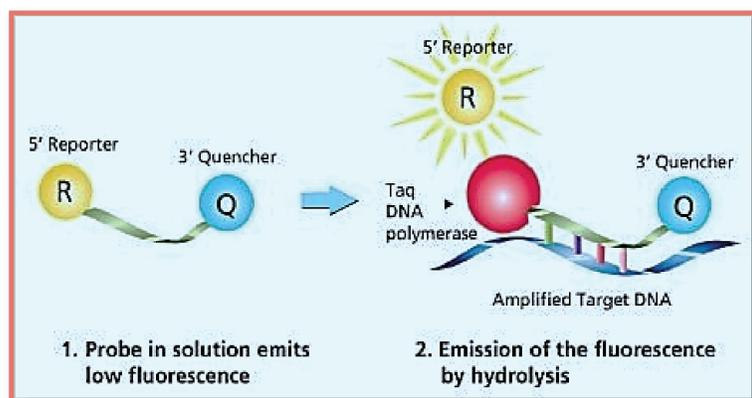
HPLC

Quantity

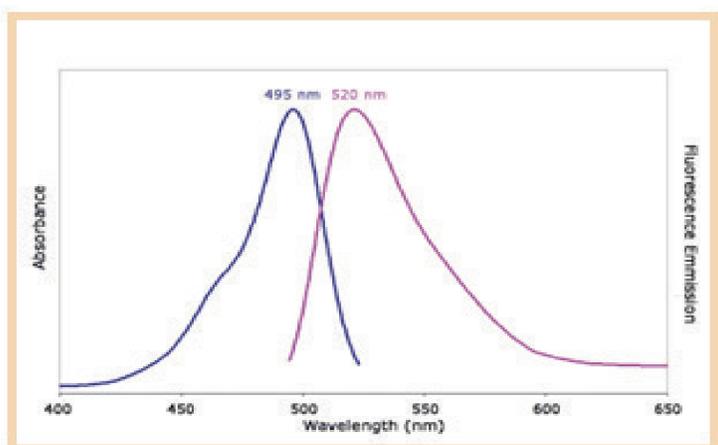
1µg to 1gm scale



6-FAM or 6-carboxyfluorescein is a synthetic fluorescein dye, particularly used for the labelling of oligonucleotides for molecular tracing. It has green fluorescence having excitation wavelength of 495 nm and emission wavelength of 517 nm.



Taq Man Chemistry- In normal conditions quencher lies in close proximity with reporter dye which inhibits the fluorescent signals. During reaction, Taq polymerase cleaves the FAM from the quencher by its exonuclease activity resulting in separation of quencher (BHQ) from fluorophore (FAM) thereby emission of fluorescence signals takes place during the PCR amplification cycle.



USE IN RT-PCR- 6-carboxyfluorescein used frequently in RT-PCR reaction in combination of suitable quencher i.e. Black Hole Quencher or BHQ1 for detecting the qualitative as well as quantitative amplification of target gene in real time.

Specifications

Synthesis Scales

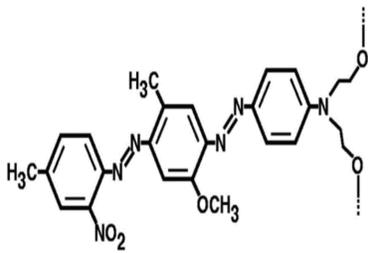
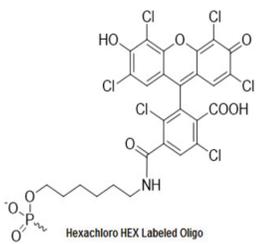
50, 200, 1000, 2000, 5000, 10000 & 20000 nmol

Purifications

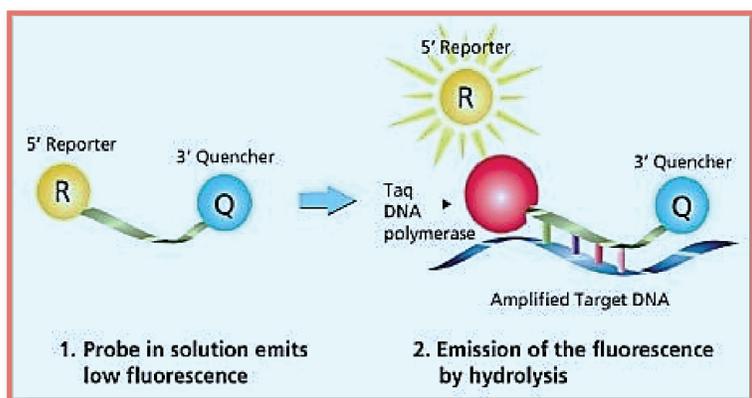
HPLC

Quantity

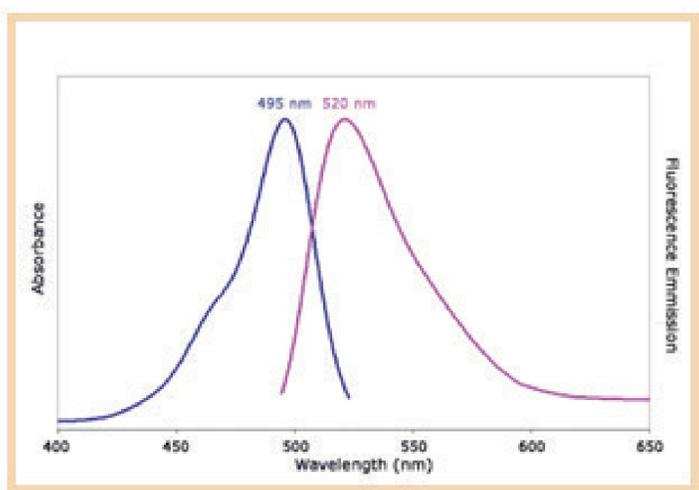
1µg to 1gm scale



HEX or Hexachloro-fluorescein is a synthetic fluorescein dye, particularly used for the labelling of oligonucleotides for molecular tracing. It has greenish yellow fluorescence having excitation wavelength of 533nm and emission wavelength of 559 nm.



Taq Man Chemistry- In normal conditions quencher lies in close proximity with reporter dye which inhibits the fluorescent signals. During reaction, Taq polymerase cleaves the HEX from the quencher by its exonuclease activity resulting in separation of quencher (BHQ) from fluorophore (HEX) thereby emission of fluorescence signals takes place during the PCR amplification cycle.



USE IN RT-PCR- 6-carboxyfluorescein is used frequently in RT-PCR reaction in combination of suitable quencher i.e. Black Hole Quencher or BHQ1 for detecting the qualitative as well as quantitative amplification of target gene in real time.

Specifications

Synthesis Scales

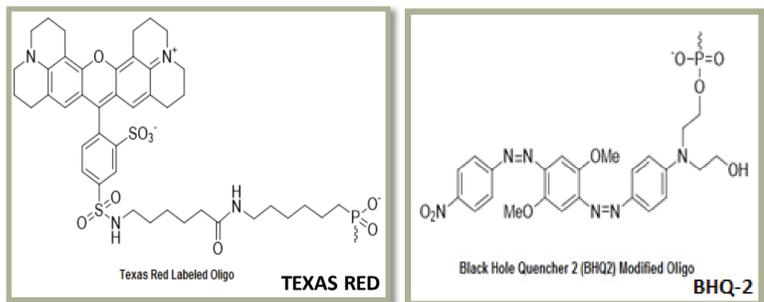
50, 200, 1000, 2000, 5000, 10000 & 20000 nmol

Purifications

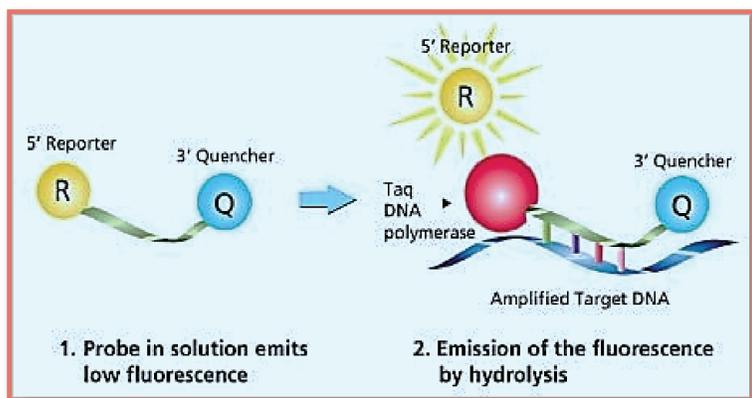
HPLC

Quantity

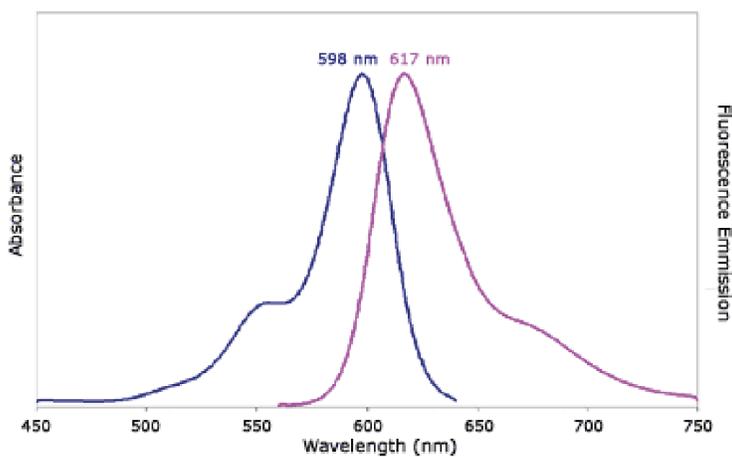
1µg to 1gm scale



ROX or is a red colored synthetic dye, particularly used for immunolabelling, oligonucleotides labelling as well as for fluorescence microscopy. It has excitation wavelength of 578nm and emission wavelength of 604 nm.



Taq Man Chemistry- In normal conditions quencher lies in close proximity with reporter dye which inhibits the fluorescent signals. During reaction, Taq polymerase cleaves the ROX from the quencher by its exonuclease activity resulting in separation of quencher (BHQ) from fluorophore (ROX) thereby emission of fluorescence signals takes place during the PCR amplification cycle.



USE IN RT-PCR- ROX used frequently in RT-PCR reaction in combination of suitable quencher i.e. Black Hole Quencher or BHQ2 for detecting the qualitative as well as quantitative amplification of target gene in real time.

Specifications

Oligosure-TEXAS RED-BHQ2

Synthesis Scales

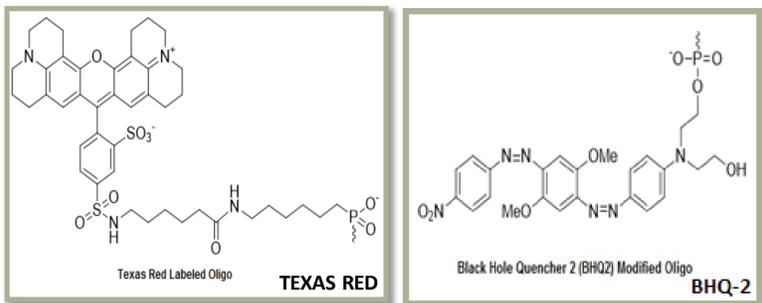
50, 200, 1000, 2000, 5000, 10000 & 20000 nmol

Purifications

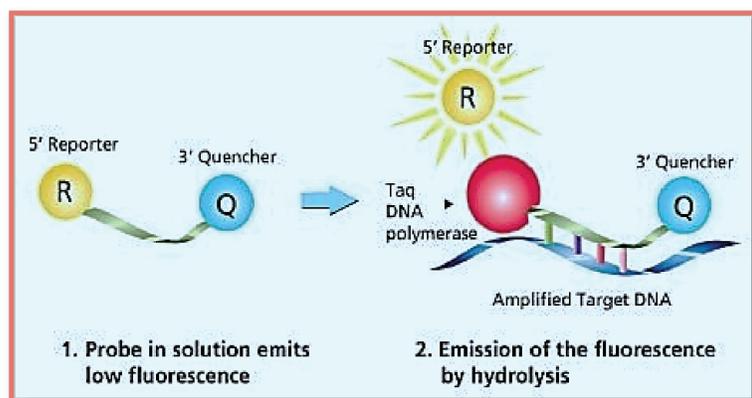
HPLC

Quantity

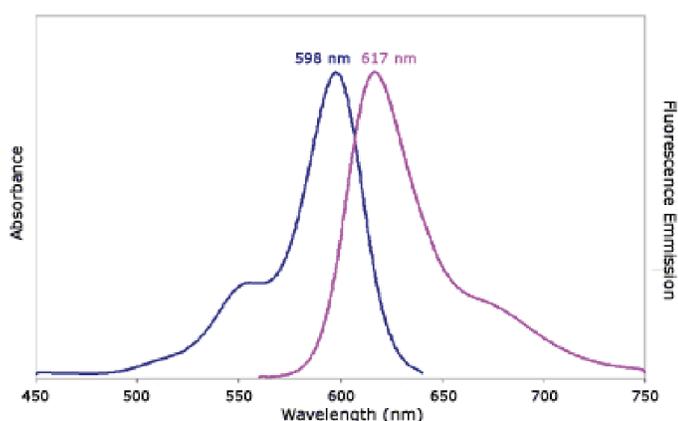
1µg to 1gm scale



TEXAS RED or Sulforhodamine 101 acid chloride is a red colored synthetic dye, particularly used for immunolabelling, oligonucleotides labelling as well as for fluorescence microscopy. It has excitation wavelength of 598nm and emission wavelength of 617 nm



Taq Man Chemistry- In normal conditions quencher lies in close proximity with reporter dye which inhibits the fluorescent signals. During reaction, Taq polymerase cleaves the TEXAS RED from the quencher by its exonuclease activity resulting in separation of quencher (BHQ) from fluorophore (TEXAS RED) thereby emission of fluorescence signals takes place during the PCR amplification cycle.



USE IN RT-PCR- TEXAS RED is used frequently in RT-PCR reaction in combination of suitable quencher i.e. Black Hole Quencher or BHQ2 for detecting the qualitative as well as quantitative amplification of target gene in real time.

Specifications

Synthesis Scales

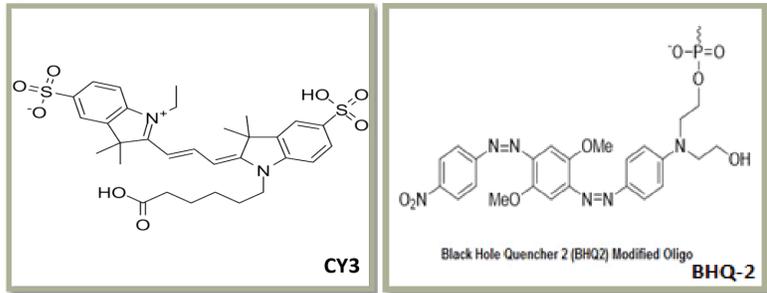
50, 200, 1000, 2000, 5000, 10000 & 20000 nmol

Purifications

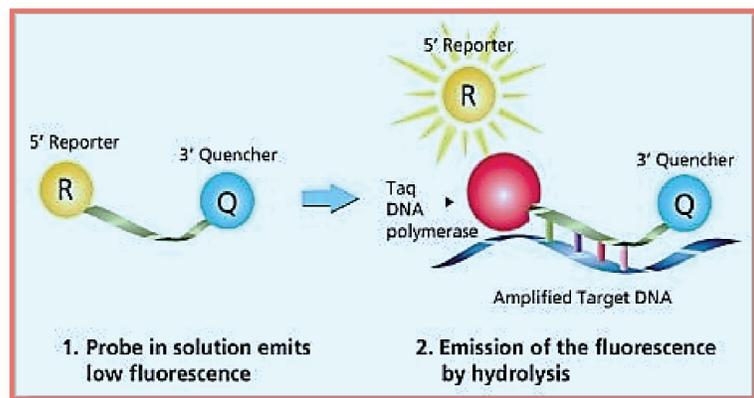
HPLC

Quantity

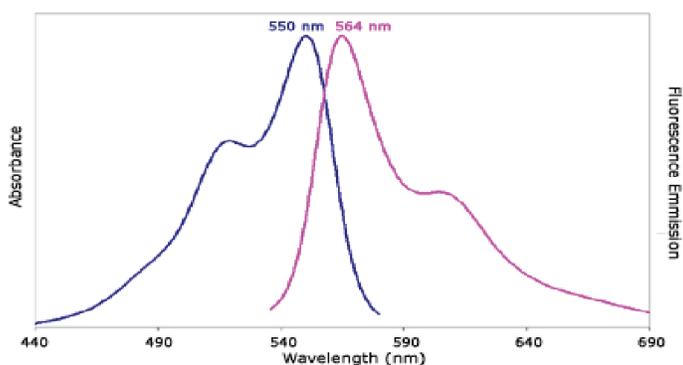
1µg to 1gm scale



CY-3 or Cyanine-3 is a synthetic fluorescein dye, particularly used for immunolabelling, oligonucleotides labelling as well as for fluorescence microscopy. It has orange fluorescence having excitation wavelength of 550nm and emission wavelength of 564 nm.



Taq Man Chemistry- In normal conditions quencher lies in close proximity with reporter dye which inhibits the fluorescent signals. During reaction, Taq polymerase cleaves the CY3 from the quencher by its exonuclease activity resulting in separation of quencher (BHQ) from fluorophore (CY3) thereby emission of fluorescence signals takes place during the PCR amplification cycle.



USE IN RT-PCR- Cyanine-3 is used frequently in RT-PCR reaction in combination of suitable quencher i.e. Black Hole Quencher or BHQ2 for detecting the qualitative as well as quantitative amplification of target gene in real time.

Specifications

Synthesis Scales

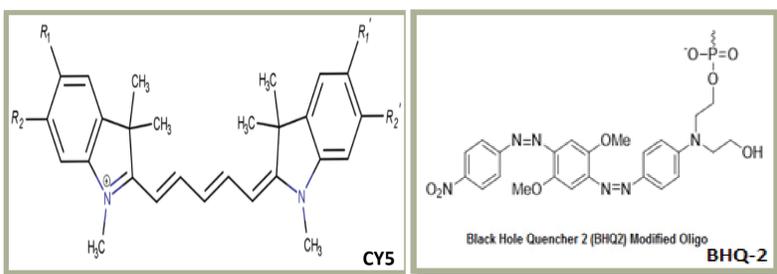
50, 200, 1000, 2000, 5000, 10000 & 20000 nmol

Purifications

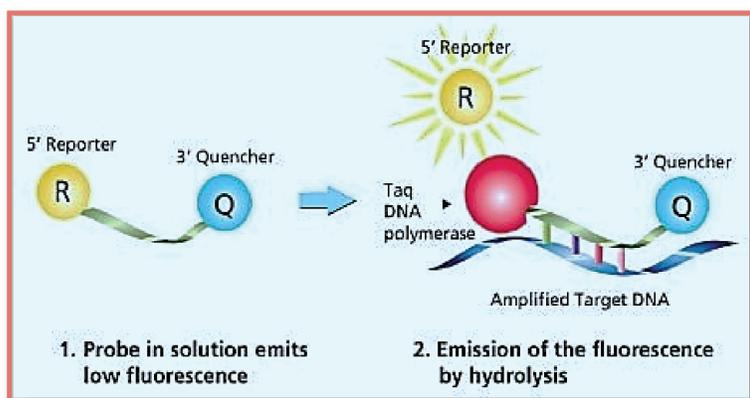
HPLC

Quantity

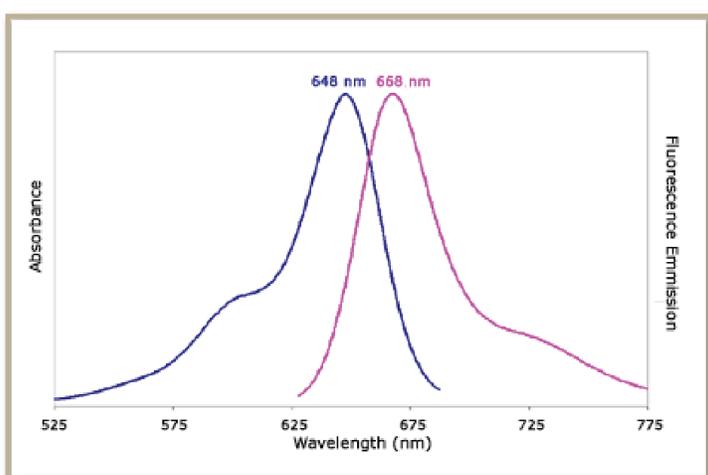
1µg to 1gm scale



CY-5 or Cyanine-5 is a synthetic fluorescein dye, particularly used for immunolabelling, oligonucleotides labelling as well as for fluorescence microscopy. It has red fluorescence having excitation wavelength of 648nm and emission wavelength of 668 nm.



Taq Man Chemistry- In normal conditions quencher lies in close proximity with reporter dye which inhibits the fluorescent signals. During reaction, Taq polymerase cleaves the CY5 from the quencher by its exonuclease activity resulting in separation of quencher (BHQ) from fluorophore (CY5) thereby emission of fluorescence signals takes place during the PCR amplification cycle.



USE IN RT-PCR- Cyanine-5 used frequently in RT-PCR reaction in combination of suitable quencher i.e. Black Hole Quencher or BHQ2 for detecting the qualitative as well as quantitative amplification of target gene in real time.