



Genomics

## qPCR Probes

Dual Labelled Probes. Molecular Beacons. FRET Probes.

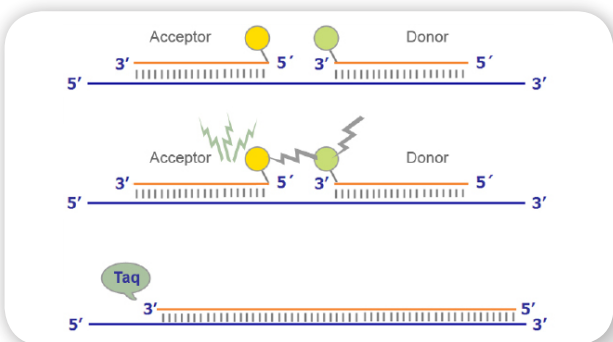


# LightCycler® Probes.

## Multiplex analysis with FRET probes

LightCycler® Probes for FRET (fluorescence resonance energy transfer) are hybridisation probes, that are highly specific for use in many techniques e.g. real-time PCR.

FRET probes consist of a donor and an acceptor, each labelled with a different fluorescent dye.



Principle of FRET.

## Specify your LightCycler® Probes

Available at a final quantity of 1 nmol, 3 nmol, 5 nmol and 10 nmol:

ACCEPTOR	Abs [nm]	Em [nm]
ROX [ROX]	575	602
Texas Red [TxRed]	583	603
LightCycler 610 [LC610]	590	610
LightCycler 640 [LC640]	625	640
Cyanine5 [CY5]	649	670
Cyanine5.5 [CY55]	675	694

DONOR	Abs [nm]	Em [nm]
Fluorescein [FLU]	495	520

# Dual Labelled Probes.

## Hydrolysis probes for TaqMan® assays

Dual Labelled Probes are designed to increase the efficiency and specificity of quantitative PCR and allow simultaneous detection of multiple targets in a single reaction. They are widely used in academic, food, environmental and medical research for:

- Gene expression analysis
- SNP & HLA genotyping
- Mutation detection & DNA quantification
- Verification of NGS and microarray results

## Design your Dual Labelled Probes

5' FLUOROPHORE	Abs [nm]	Em [nm]	3' QUENCHER
FAM [FAM]	495	520	TAM, BHQ1, DAB, Eclip
TET [TET]	521	536	TAM, BHQ1
JOE [JOE]	520	548	TAM, BHQ1, BHQ2
Yakima Yellow [YAKYE]	530	549	BHQ1, Eclip
HEX [HEX]	535	556	TAM, BHQ1, BHQ2, Eclip
Cyanine3 [CY3]	552	570	BHQ1, BHQ2, BBQ650
ATTO 550 [ATTO550]	554	576	TAM, BHQ2
TAMRA [TAM]	544	576	BHQ2
ROX [ROX]	575	602	TAM, BHQ2, BBQ650
Texas Red [TxRed]	583	603	BHQ2, BBQ650
Cyanine3.5 [CY35]	588	604	BHQ2
LightCycler 610 [LC610]	590	610	BHQ2
LightCycler 640 [LC640]	625	640	BHQ2, BBQ650
ATTO 647N [ATTO647N]	644	669	BHQ2, BBQ650
Cyanine5 [CY5]	649	670	BHQ2, BBQ650
Cyanine5.5 [CY55]	675	694	BHQ2, BBQ650
ATTO 680 [ATTO680]	680	700	BBQ650

Table of available dye-quencher combinations.

# Molecular Beacons.

## Oligonucleotide hybridisation probes

Molecular Beacons are used for detecting specific sequences of nucleic acids. They are used in the following real-time assays:

- SNP & nucleic acid detection
- Real-time PCR quantification
- Diagnostic clinical assays
- Allelic discrimination and identification

## Build your Molecular Beacons

5' FLUOROPHORE	Abs [nm]	Em [nm]	3' QUENCHER
FAM [FAM]	495	520	TAM, BHQ1, DAB, Eclip
TET [TET]	521	536	TAM, BHQ1
JOE [JOE]	520	548	TAM, BHQ1, BHQ2
HEX [HEX]	535	556	TAM, BHQ1, BHQ2, Eclip
Cyanine3 [CY3]	552	570	BHQ1, BHQ2, BBO650
ATTO 550 [ATTO550]	554	576	TAM, BHQ2
TAMRA [TAM]	544	576	BHQ2
ROX [ROX]	575	602	TAM, BHQ2, BBO650
Texas Red [TxRed]	583	603	BHQ2, BBO650
Cyanine5 [CY5]	649	670	BHQ2, BBO650

Table of available dye-quencher combinations.

## Guaranteed yields for Dual Labelled Probes and Molecular Beacons

Synthesis scale [μmol]	0,01	0,05	0,2	1,0
Minimum yield [OD]	1	1,5	3	6

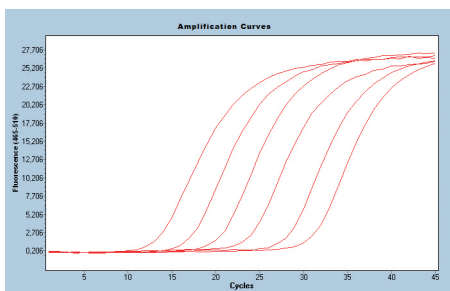


# Excellence In Real-Time PCR.

## Advantages of using Eurofins Genomics

Eurofins Genomics has more than 20 years of experience in synthesizing modified oligonucleotides and probes.

As a service lab for food, species and forensic testing we have a significant expertise in probe based real-time PCR and know the functional and quality requirements for qPCR Probes.



TaqMan<sup>®</sup> assay with a FAM-TAM Probe on a LightCycler<sup>®</sup> instrument.

## Our quality commitment

- Each qPCR Probe is HPLC purified and subsequently checked by MALDI-TOF MS to ensure highest quality.
- The performance of our qPCR Probes is continuously confirmed by our Applied Genomics department.
- Our quality assurance is ISO 9001 & ISO 13485 certified to underline our commitment to deliver best quality products.

## Documents & data sheets

Synthesis report, data sheet, delivery note and the quality report with the MALDI-TOF MS traces are provided for all qPCR Probes in your online account free of charge.

# Feel Free To Contact Us.

## Toll free phone numbers

Austria	0800 296 562
Belgium	0800 77862
Denmark	8088 1262
Finland	0800 112 744
France	0800 903 807
Ireland	1800 555 056
Italy	800 785 950
Luxemburg	8002 6418
Netherlands	0800 0226215
Norway	800 138 44
Sweden	020 798 148
Switzerland	0800 562 013
UK	0800 0323 135

## Email:

[support-eu@eurofins.com](mailto:support-eu@eurofins.com)

## Phone:

+49 8092 82 89-77

## Official business hours:

8 a.m. – 6 p.m. CET

