



# Amplify your Impact

## Molecular Diagnostics at its Best: qPCR Probe Portfolio

- SimpleGT Probes©
- LightCycler® HybProbes
- Dual-Labelled Probes
- HP Double Quenched Probes
- Minor Groove Binder (MGB) Probes
- Locked Nucleic Acid (LNA) Probes
- Zip Nucleic Acid® (ZNA) Probes
- Extensive Fluorophore and Quencher Portfolio



Tailor-made qPCR probes  
for all your research and clinical needs



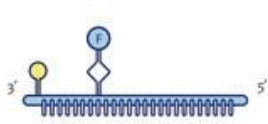
Tackle challenging  
sequences and targets



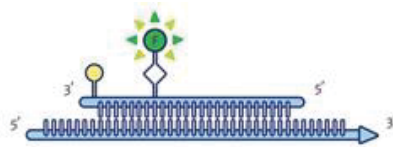
Highest quality probes:  
full confidence in results

## SimpleGT Probes©: Simplify your Mutational Analysis

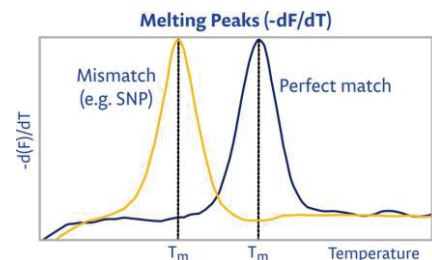
SimpleGT Probes© are single-labelled qPCR probes, labelled with fluorescein. SimpleGT Probes© are designed to bind specifically to SNP containing sequences. Results are produced by melting curve analysis, comparable to the Lightcycler® HybProbe system, but requiring only one single fluorescent probe instead of two. Differences in melting temperature reveal the presence of SNPs.



Fluorescence is quenched in  
solution



Fluorescence increases upon  
hybridisation



SimpleGT Probes© are fully compatible with LightCycler® platforms as well as platforms performing melting curve analysis with similar settings like signal detection/acquisition at 530 nm.

### SimpleGT Probes©: Key Features



Single Fluorescein-  
Labelled Format



Simple Single Probe  
System



Melting Curve  
Analysis

### Key Applications



SNP Genotyping and  
Mutation Detection



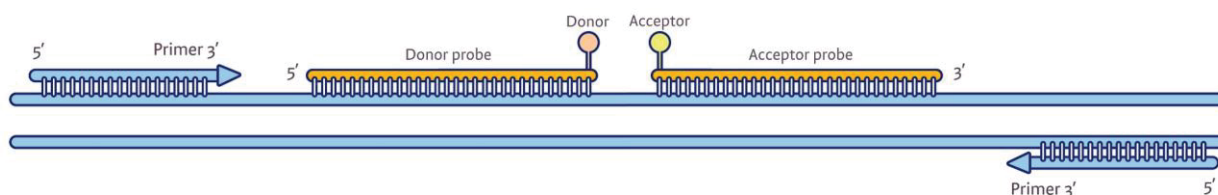
Disease Diagnosis  
and Monitoring

# Specificity in a new light

## LightCycler® HybProbes: Precision meets Reliability

Designed for applications that require the highest degree of specificity and a low background, LightCycler® HybProbes are widely used in research and diagnostics for the detection of challenging SNPs and point mutations.

The LightCycler® HybProbe system is based on FRET and consists of two labelled oligonucleotides that hybridize in a head-to-tail arrangement to adjacent sequences of the target DNA. The donor probe is labelled at the 3' end with a donor fluorophore (fluorescein), and the acceptor probe is labelled at the 5' end with an acceptor fluorophore (e.g. LightCycler Red 640).



When both probes hybridize adjacently on the target DNA, the proximity allows FRET, which results in a very specific fluorescence signal during annealing.

With its unique FRET-based mechanism, LightCycler® HybProbes allow for post-PCR melting curve analysis, enabling precise SNP and mutation detection in very closely related sequences. metabion synthesizes LightCycler® HybProbes in an ISO-certified manufacturing facility using processes licensed by Roche. We offer LightCycler® HybProbes in seven different scales at defined molar amounts.

### LightCycler® HybProbe Applications



SNP Genotyping and  
Mutation Detection



Real-Time  
Quantification



Pathogen Detection  
and Verification



Multiplex  
Assays

**metabion** – *Quality to Trust*