

## Technologies

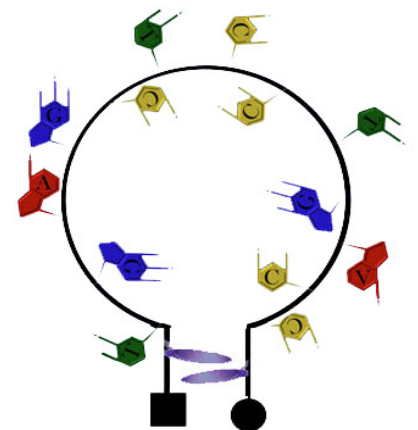
### Intercalating Nucleic Acid®

PentaBase's proprietary technology, Intercalating Nucleic Acid® (INA®), is a hydrophobic base analog that is incorporated into oligonucleotides without replacing any nucleotide in the oligonucleotide sequence. The integrated INA® enhances the stacking effect of the DNA helix, which increases affinity, sensitivity and specificity of the oligonucleotide.

### EasyBeacon™ and HydrolEasy™ probes

PentaBase is offering high quality, dual-labelled INA® modified probes with a broad range of different fluorophores and quenchers. We offer two types of proprietary, dual-labelled probes for real-time PCR; EasyBeacon™ probes for end-point analysis and hydrolyzable HydrolEasy™ probes for qPCR with improved signal-to-noise ratio.

- Increased target **specificity, sensitivity** and **affinity**
- High **multiplexing capacity**
- Improved **signal-to-noise** ratio
- **Simple** design and **temperature independent** quenching



### BaseProbes™

BaseProbes™ is a universal master mix comprising one to four qPCR probes. The system combines the versatility of SYBR™ Green type detection with the multiplex capacity of molecular probes.

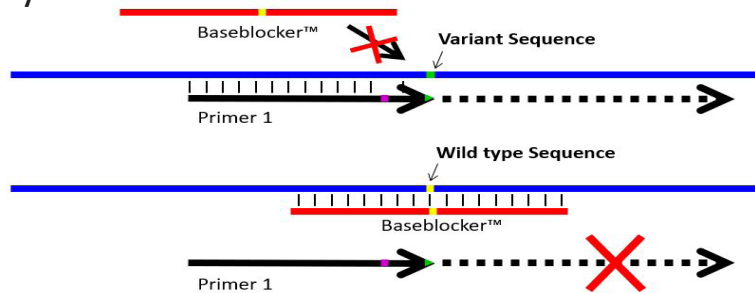
- Multiplexible **SYBR™ Green** replacement
- **Easy conversion** from your current assays
- Enables real **internal control**
- Compatible with standard qPCR configurations



## BaseBlockers™

BaseBlockers™ are short, INA® modified oligonucleotides showing tight and specific binding to their target sequence. They are particularly useful for detection of variants with low allele frequencies by blocking wildtype priming activity and removal of false positive signals.

- High **specificity** - minimal effect on variant sequence
- Enhanced **robustness** of assays
- Removal of cross signaling
- Increased **detection range**



**BaseBlocker™.** Due to their high affinity and specificity, BaseBlockers™ efficiently prevent amplification from one variant (wild type sequence) while showing minor effect on amplification of other variants (variant sequence).

## SuPrimers™

SuPrimers™ are DNA primers modified with our INA® technology and are compatible with nearly all PCR applications. SuPrimers™ are applicable with standard reagents and all PCR platforms.

- Increased **affinity**, facilitating shorter primer design
- Highly **specific** priming
- Reduced primer-dimer formation
- Support higher **on-target portion** of oligo

## PentaBase

PentaBase is a knowledge-based, ISO-certified real-time PCR focused company from 2006 founded and managed by researchers in Denmark. We have local *in-house* production of custom oligonucleotides based on our own proprietary DNA chemistry, known as Intercalating Nucleic Acid (INA®). We specialize in manufacturing of real-time PCR probes for IVD companies and development of *in vitro* diagnostic assays for real-time PCR with focus on detection of somatic mutations in cancer. For more than 10 years, we have created products for researchers and medical professionals exploring new treatments and helping patients worldwide.

