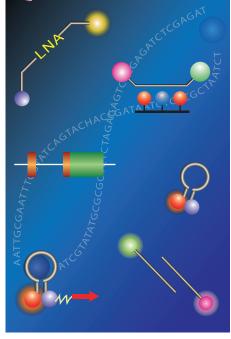
PREMIER Biosoft



Design SYBR[®] Green primers, TaqMan[®] probes, MethyLight TaqMan[®] probes, LNA[™] spiked TaqMan[®] probes, Scorpions[®], FRET probes & molecular beacons free of secondary structures for increased signal strength.

Evaluate pre-designed probes, primer pairs and beacon or TaqMan[®] probes.

Tm calculated using nearest neighbor thermodynamic theory and highly accurate SantaLucia values.

Design primers across an exon-exon or exon-intron junctions to selectively amplify cDNA.

Design compatible primers for other targets in multiplex reactions.

View the location of primers, probes, regions of BLAST homology and template structures on the sequence and check for all possible secondary structures.

Retrieve sequence from Entrez and dbSNP and perform BLAST search.

Load SNP using GenBank or add your own SNP information.

Export results in a tab delimited format for easy ordering or for importing into central databases like Oracle.

Ability to generate an attractive report of the designed assays.

Local built-in database maintains sequence information, search results and BLAST result summaries.

Strong web integration.

Available for Windows and Mac.

Beacon Designer[™]

Design SYBR[®] Green primers, primers for HRMA, TaqMan[®] probes, MethyLight TaqMan[®] probes, LNA spiked TaqMan[®] probes, Scorpions[®], FRET probes or molecular beacons for robust amplification and fluorescence in real time PCR

Optimal SYBR® Green Primer Design

Use Beacon Designer[™] to design highly specific and efficient SYBR[®] Green primers. Specificity is assured by avoiding significant cross homologies identified by automatically interpreting BLAST search results. To assure efficient hybridization and high yield, the program avoids template secondary structures for locating primers.

High Resolution Melt Analysis (HRMA) Primer Design

Beacon Designer™ offers a comprehensive solution for mutation detection. High Resolution Melt Analysis (HRMA) is a more costeffective method than probe-based genotyping analysis. The program employs proprietary algorithms that enable designing the best primers for

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detecting SNPs, MNPs, DIPs and Mixed type mutations.

Design Multiplex Assays

Beacon Designer[™] uses innovative proprietary algorithms to design optimal primer-probe sets for single tube multiplex assays. You can choose the set best suited for your experimental needs from a list of alternates presented in variously sortable order. If you want to incorporate well-proven sets for some of the templates, or include reference or housekeeping genes for normalization purposes in the assay, Beacon Designer[™] is equipped to fully support your needs.

Dual Labeled Probe Design

Beacon Designer[™] offers comprehensive support for designing TaqMan[®], molecular beacon, Scorpions[®] and FRET assays for studying differential gene expression or detecting SNPs using single template or multiplex reactions. You can even confirm SYBR[®] Green assay results by designing probes compatible with previously designed primer pairs for any of these techniques. Or simply evaluate partially or fully predesigned assays using instant analysis capabilities of Beacon Designer[™].

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