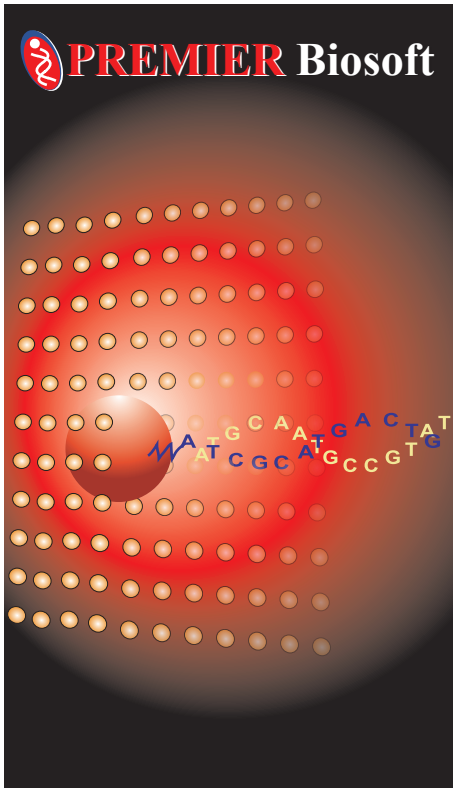
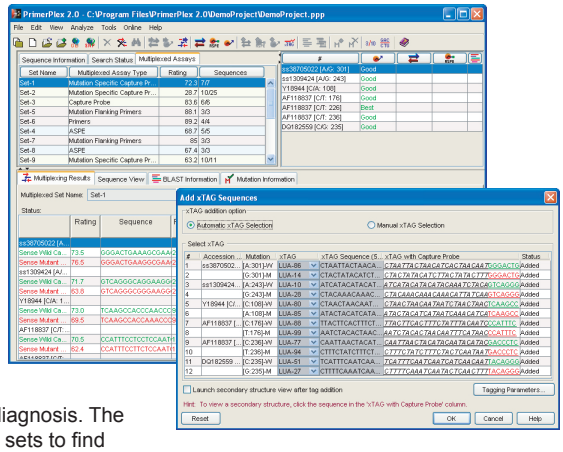
PREMIER Biosoft



PrimerPleX

Multiplex PCR Primer Design Software

PrimerPlex is an efficient & sophisticated tool for designing primers for multiplex PCR . Multiplex assays facilitate amplification of multiple targets in a single reaction vessel, reducing both, the time and cost of experimentation.



Standard Multiplex PCR

Multiplex assays facilitate amplification of multiple targets in a single reaction vessel, reducing both, the time and cost of experimentation. Multiplex PCR applications now include pathogen identification, next generation sequencing for target enrichment, gender screening, linkage analysis, forensic studies, template quantitation and genetic disease diagnosis. The algorithms runs through hundreds of primer sets to find primers that not only work efficiently for the sequence but also do not cross hybridize with any other sequence in the pool, or interact with other primer sets of other sequences to assure high signal strength. The primers are designed under uniform reaction conditions to enable amplification under standard experimental conditions. Primers for standard multiplex PCR are designed for different amplicon lengths, different enough to form discernible bands when visualized on a gel.

SNP Genotyping

PrimerPlex retrieves both, ssIDs and rsIDs from dbSNP database at the NCBI. To amplify SNP sites, PrimerPlex designs primers flanking these. User can specify the number of the bases to be excluded up and downstream of the SNP. If there are multiple SNPs in a sequence, the software generates a report displaying primers, their positions and number of bases overlapping with other primers and SNPs.which they are not intended to amplify.

Next Generation Sequencing Assay

PrimePlex designs multiplex oligos for target enrichment and mutation detection such as SNPs, DIPs (Deletion/Insertion Polymorphisms) and MNPs (Multiple Nucleotide Polymorphisms).

Evaluate Primers and Probes

PrimerPlex can use pre-designed well proven oligos to build a multiplex set. After specifying the oligos, their properties are analyzed and the user is alerted for any deviations so found. For the sequences where pre-designed oligos are not specified, PrimerPlex designs them, checks them for multiplexing and highlights compatibility issues with the pre-existing ones. The user can then decide to accept the design or create a separate pool, giving complete control in the hands of user.

Direct Hybridization Assays

PrimerPlex designs specific capture probes for direct hybridization assays. Their specificity is assured by avoiding significant cross homologies identified by automatically interpreting BLAST search results. The innovative and proprietary algorithm analyzes each one of these probes for their suitability in a multiplex reaction. The probes are designed by minimizing Tm mismatches and are screened for cross and self dimers, assuring strong signal strength. This functionality makes PrimerPlex the only software product capable of designing probes for 150 individual targets in a single reaction vessel.

Allele Specific Primer Extension (ASPE) Assays

PrimerPlex designs highly specific primers for the novel Allele Specific Primer Extension (ASPE) assays. The Allele Specific Primer Extension (ASPE) primers are designed such that the mutation lies at their 3' end. The primers are analyzed for their suitability in a multiplex reaction as described above.

Supports over 100-plex assay design for standard PCR Assays.

Screens oligos for homologies for robust signal strength.

Supports popular SNP detection methods such as Allele Specific Primer Extension (ASPE) assays & direct hybridization assays.

Uses innovative and proprietary algorithms for oligo design.

The sequence view enables easy visualization of the design results.

Retrieves sequence from Entrez and dbSNP (rsIDs and ssIDs).

Maintains local built-in database for sequence information, search results and BLAST search summaries.

Exports results in a tab delimited format or as an html page for easy ordering or for importing into central databases such as Oracle.

Uses novel color schemes to customize user interface.

Available for both, Windows and Mac.

To activate & evaluate, follow these steps
- Install PrimerPlex from our website or the CD
- Launch the program and click 'Activate' on the first window
- Enter the 'Registration Number' requested from us and your e-mail address. Click 'Next'
- Update the registration information following the on-screen prompts and click 'Submit'

For a quick start
- Check the Multimedia Tutorial

Order on-line
- E-mail: sales@premierbiosoft.com
- Phone: 650-856-2703, Fax: 650-618-1773

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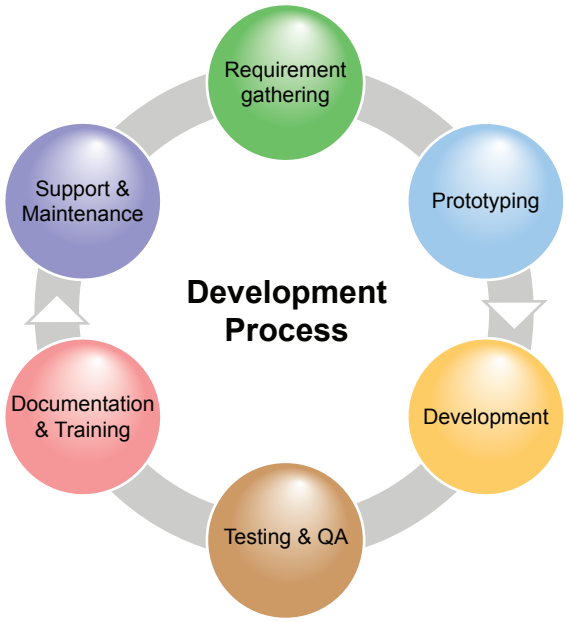
Bioinformatics Services

PREMIER Biosoft has a successful record of software development in bioinformatics molecular biology since 1994. Our software products have been well received by the life science community over these years. We specialize in software development, design, testing and maintenance. If you have a new requirement or need the upkeep of a current database/software system, our team of bioinformatics scientists and computer professionals can assist.

For more information, please write to us at info@premierbiosoft.com or call 650-856-2703 or visit the "Services" section of our website.



AlleleID®	A comprehensive tool designed to address the challenges of species identification & taxa discrimination using qPCR, xMAP® and microarrays. (for Win & Mac)
Array Designer	For fast and efficient design of specific oligos for whole genome arrays, tiling arrays and resequencing arrays. (for Win & Linux)
Beacon Designer™	Design specific and efficient oligos for all major qPCR assays. (for Win & Mac)
LAMP Designer	Design primers for Loop-mediated Isothermal Amplification. (for Win)
MALDIVision	A comprehensive data processing & visualization tool for MALDI IMS data. (for Win)
MLPA® Designer	A comprehensive tool co-developed with MRC-Holland to design highly specific oligos for MLPA assays. (for Win & Mac)
PrimerPleX	A multiplex PCR primer design tool. (for Win & Mac)
Primer Premier	A comprehensive primer design tool for standard PCR assays. (for Win and Mac)
ProteoIQ	Right from validation to quantification, a powerful software that supports the entire proteomic data analysis pipeline. (for Win & Mac)
SimGlycan®	High throughput glycan & glycopeptide identification tool for data from TripleTOF, MALDI TOF/TOF, LC-MS/MS systems. (for Win)
SimLipid®	High throughput lipid characterization tool for data from Triple TOF, MALDI TOF/TOF, LC-MS, LC-MS/MS systems. (for Win)
SimMet®	A robust high throughput informatics software for qualitative and quantitative analysis of mass spectrometry metabolite data. (for Win)
SimVector	A tool for drawing publication, vector catalog quality maps & designing cloning experiments. (for Win & Mac)
Xpression Primer	A novel tagged primer design tool for expression cloning and for designing sequencing primers to verify transcripts. (for Win & Mac)

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