



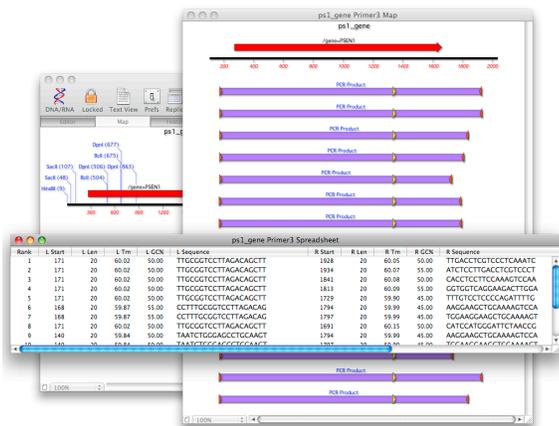
MacVector, the leading sequence analysis package for the Macintosh, takes full advantage of the Mac's easy to use interface. MacVector makes it simple to import or create your sequences, design primers for them, subclone them into cloning vectors, align them, assemble reads against them, find SNPs, run protein analyses, and a wide variety of other functions with just a few mouse clicks, and all in a single integrated package. Spend more time in the lab and less time in front of the computer.

## Key Scientific Functionality

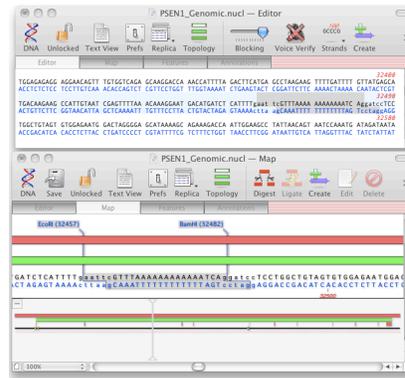
**Align to Reference** Assemble automated sequencing files against a reference sequence. Quickly spot sequencing and cloning errors and easily identify SNPs and other clonal variations. Align cDNA/mRNA sequences against genomic sequences, showing intron/exon boundaries.

**Primer Analysis** Design primers with three mouse clicks. Design primers for PCR, sequencing and realtime/qPCR analysis. Save time by testing your personal primers against a sequence in MacVector before the PCR machine.

**Auto Annotation.** How often have you received or downloaded a vector that has no annotations? Scan a folder full of existing annotated sequences and automatically add matching features to the bare sequence. Curate your lab's sequences so



Primer design in MacVector allows you to click on a feature and design primers with as few as 3 mouse clicks. Including internal primers for realtime PCR analysis.



MacVector's easy to use interface allows you to navigate effortlessly through large feature rich sequences.

that the ampicillin resistance gene is always a blue arrow or an M13 origin is always a striped red box.

**Integrated BLAST and Entrez Database Search** and retrieve sequences in the NCBI's Entrez databases Perform BLAST searches at the NCBI. Retrieve sequences directly to your desktop. Search your own local sequences too.

**Multiple Sequence Analysis** Create alignments in the full-featured, alignment editor. Create customizable, publication-quality alignments and dendrograms.

**Evolutionary Analysis** Generate customizable, true phylogenetic trees from an alignment and produce publication-quality output. Choose between neighbor joining and UPGMA methods to create the trees.

**Click Cloning.** MacVector's Click Cloning tool saves you time. You can clone DNA fragments from a sequence into a vector based on point & click selection of restriction enzyme sites. Fill or cut back cleavage overhangs to create blunt ends. Compatible ends to digested fragments are highlighted in cloning vectors. Every cloning action is documented.



**Mapping** Perform restriction digests and proteolytic analyses. Perform digests using your own custom collection of enzymes, or from a specific supplier. Automatically display cut sites on your sequence.

**Motif Searching** Find sequence motifs for nucleic acids and peptides. Create your own motif files for custom searches.

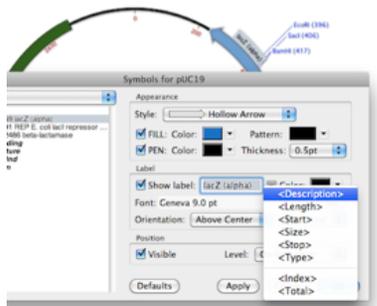
**Protein Analysis** Predict protein secondary structure, hydrophathy, antigenicity, and flexibility using the integrated Protein Analysis Toolbox.

**Perform Interactive Gene Prediction** Detect open reading frames. Select from a variety of algorithms, including Staden's algorithms, Fickett's statistical method, and Gribskov's codon preference method.

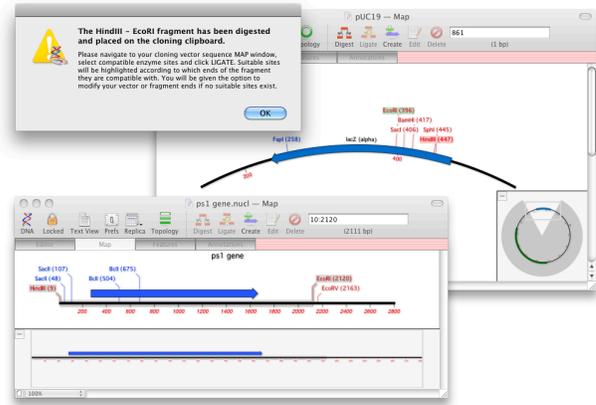
**Generate mRNA from a Genomic Sequence** Use the exon, intron, CDS and RNA features to generate the mRNA associated with the coding region of a sequence.

## MacVector Advantages

**Easy to use interface** MacVector takes full advantage of the OS X interface, allowing you to customize the toolbar to have all



Graphics look how you want them to look, with metatags for "intelligent" labels.



Click cloning allows you to easily document your constructs. Restriction fragments are recorded as Genbank compatible features to document the construct's history.

your favorite functions instantly available. The "replica" button lets you open multiple windows on each sequence document, allowing you to view Sequence, Map and Features views all at the same time it that suits your workflow.

**High Quality Graphics.** Customize sequence graphics. Modify features and results maps of your sequence. You choose which features and results to display, and how they appear. Easily import graphics into any OS X application for publication or for presentations by simply copying and pasting.

**File Import and Export** Import and export sequence data in a variety of file formats, including GenBank, GenPept, EMBL, SWISS- PROT, FastA, FastP, Staden, and GCG. Import and export multiple sequence alignments in: PHYLIP, NEXUS, NBRF, and GCG-MSF. All files compatible with Genbank's Feature Table specification. BrowseVectorNTI databases and import directly.

**Easy Feature Editing.** Create features with MacVector's easy and powerful point and click Features Editor. Produce annotated sequences that are fully compatible with the Genbank format.

## Contact Information

### Main Headquarters

MacVector, Inc  
PMB 150  
1939 High House Road  
Cary, NC 27519  
USA

Toll free: 1-866-338-0222  
Telephone: 1-919-303-7450  
General Fax: 1-919-303-7449  
Information: info@macvector.com  
Support: support@macvector.com

### European Sales and Support

MacVector, Inc.  
PO Box 1171  
WATERBEACH  
CAMBRIDGE  
CB25 9WH  
UK

Telephone: +44 (0)1223 410552  
Fax: +44 (0)1223 709429  
Website: www.macvector.com  
Sales: sales@macvector.com

