



Phagehunting Program

How to Make A GenBank File

Go to DNA Master
Parse all your ORFs
Go to DNA>Genome>Profile
Deselect all windows on left
Select Export non orfs
Select Load into XCEL

Copy start and stop coordinate columns
Reverse starts and stops for reverse frame genes
Copy one of these two fixed columns into Word
Convert table to text
Replace paragraph marks with seven paragraph marks
Copy all back to XCEL
Copy it again into another column
Add two spaces above the second column
Copy the second column
Paste Special into the first column, skipping blanks

Repeat for stops

Find template file (Final DNA Master files, GenBank files, template.xls)
Copy these into the template
Change the tRNA genes as appropriate (CDS becomes tRNA)
Delete all numbers below your last gene
Save as tab-delimited text file
Change the Top line to
>Feature Bacteriophage[your phage name]
Save as text file

Final DNA Master file is a sequin file "Sequin.exe"
Open Sequin (Double Click)
Fill in all data
Give one year for release
Tentative title "Bacteriophage Genomics"
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Location of sequence: Virion
Scientific Name: Bacteriophage MP##
Genetic Code: Standard

Import Fasta file of your sequence
Check the no of bases is correct

Save all this
Then hit open
Open your “features” text file

Save it with a new name
Proof it
Change all GTG and TTG starts translations to “M”
Double click on the orf
Edit protein sequence
Change to M
Close the back window
Choose “accept changes”

Save the file again,
Export Genbank file
Save this

Go in to the sequin file to add notes for each gene (Blast matches, other data, frameshift annotation, etc etc)