

ProMatch instruction

1. Create a new ProMatch database [for first time user or for updating a database]

- ✓ Obtain a RefSeq database **.protein.gpff** (for protein matching) or **.rna.gbff** (for mRNA matching) from NCBI RefSeq FTP site
 - Go to <ftp://ftp.ncbi.nlm.nih.gov/refseq/> then;
 - Select a species, for example, select a rat database e.g. ftp://ftp.ncbi.nlm.nih.gov/refseq/R_norvegicus/ then;
 - Select the mRNA_Prot folder e.g. ftp://ftp.ncbi.nlm.nih.gov/refseq/R_norvegicus/mRNA_Prot/ then;
 - Download and unzip [rat.protein.gpff.gz](#) or [rat.rna.gbff.gz](#) then;
 - Save **rat.protein.gpff** or **rat.rna.gbff** anywhere in your computer
- ✓ In “Create a new ProMatch database” panel, enter a saved RefSeq database **.protein.gpff** (for protein matching) or **.rna.gbff** (for mRNA matching) using a browse button
- ✓ Select a directory to save a new ProMatch **[.pm]** database using a browse button
- ✓ Click “Create” button

2. Run ProMatch

- ✓ In “ProMatch” panel, select a saved ProMatch **[.pm]** database (**.protein.gpff.MM_dd_yyyy.pm** for protein matching or **.rna.gbff.MM_dd_yyyy.pm** for mRNA matching) using a browse button
- ✓ Select a match parameter and matching method from drop down menus e.g.
 - match parameter **Protein/mRNA sequence**
 - matching method **contains**
- ✓ Enter a list of input entries (space delimited) e.g. **peptide or mRNA sequences** by direct pasting (e.g. from an Excel column) or typing (check the “Paste/Type” box) or browsing an input text file
- ✓ Select an output format
- ✓ Click “Submit” button

matches (regex) method

Note that the matches (regex) method can be used to find a motif in protein or mRNA sequence database. For example, to find a PKA phosphorylation motif [R/K][R/K]X[pS/pT] in protein sequence database, use the following parameters:

- match parameter **Protein/mRNA sequence**
- matching method **matches (regex)**
- input (regular expression) **[RK][RK].[ST]**

For more details on how to construct regular expression, please check java **Class Pattern** <http://docs.oracle.com/javase/6/docs/api/java/util/regex/Pattern.html>