SIRIUS Prediction System Builder 2.33

Target audience
Users who want to learn using Sirius PSB by example.

How to use this guide
As this guide is in a teach-by-example format, you would require certain files to effectively follow this guide. All the files that you need should come bundled with this guide.

To obtain results stated in the manuscript under the section “Shaping the Tubular Endoplasmic Reticulum in Saccharomyces Cerevisiae”

Using Nearest Neighbor Search (NNSearch)to find proteins that have similar properties to RTN1 and RTN2

1. Select *Sequence Apps*, then *NNSearcher (Nearest Neigbor Search)* (Figure 1).

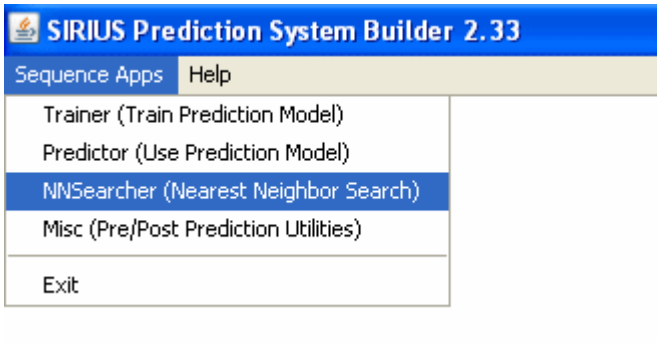


Figure 1. Start up NNSearcher

Carrying out the search

1. a) From **Input**, click the box beside *Query* (Figure 2).

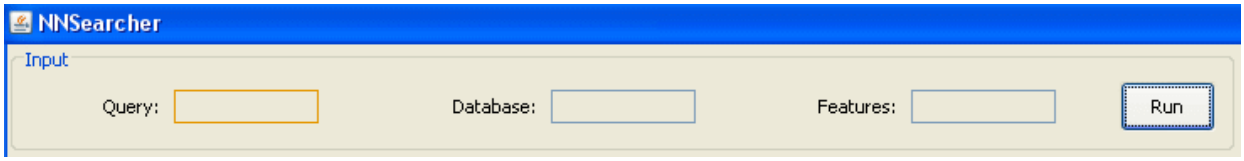


Figure 2. Selecting query file to load

b) From the pop-up window, select RTN1&RTN2.fasta and click *Open*.

2. a) Click the box beside *Database*.

b) From the pop-up window, select uniprot_sprot(Saccharomyces cerevisiae Only).fasta and click *Open*.

3. a) Click the box beside *Features*.

b) From the pop-up window, select 1-2gramRelativeWithDefaultBasicPhysiochemical.features and click *Open*.

4. Click *Run* (Figure 3).

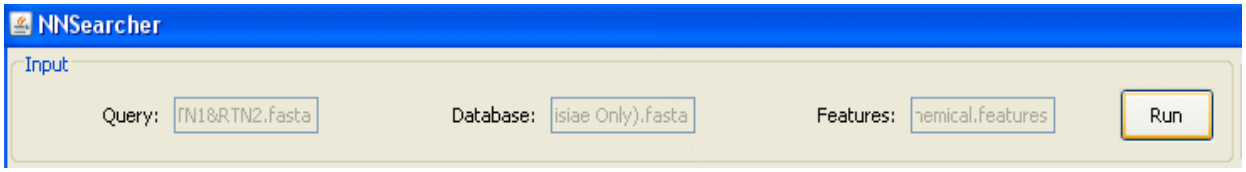


Figure 3. Click Run

5. a) After the program has completed the run, from **Filter**, click *Load* (Figure 4).

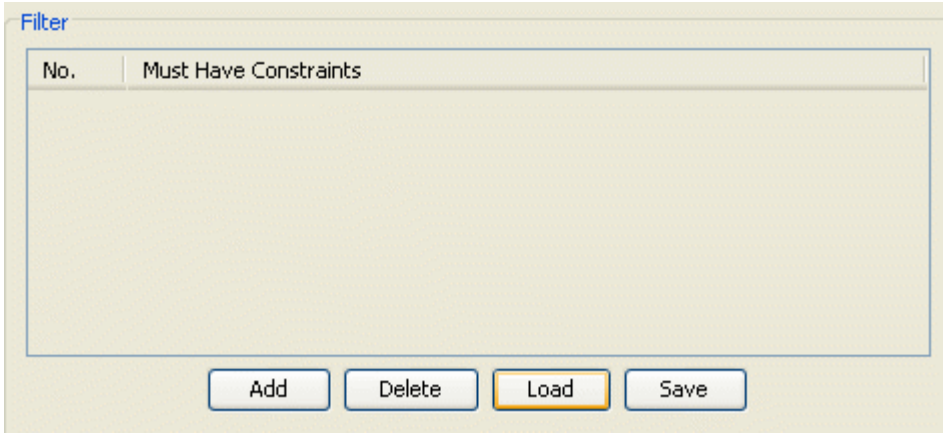


Figure 4. Load filters

b) From the pop-up window, select basedOnVisual.constraints and click *Open*.

6. After filtering is complete, the results will then be shown in the **Output** section (Figure 5).

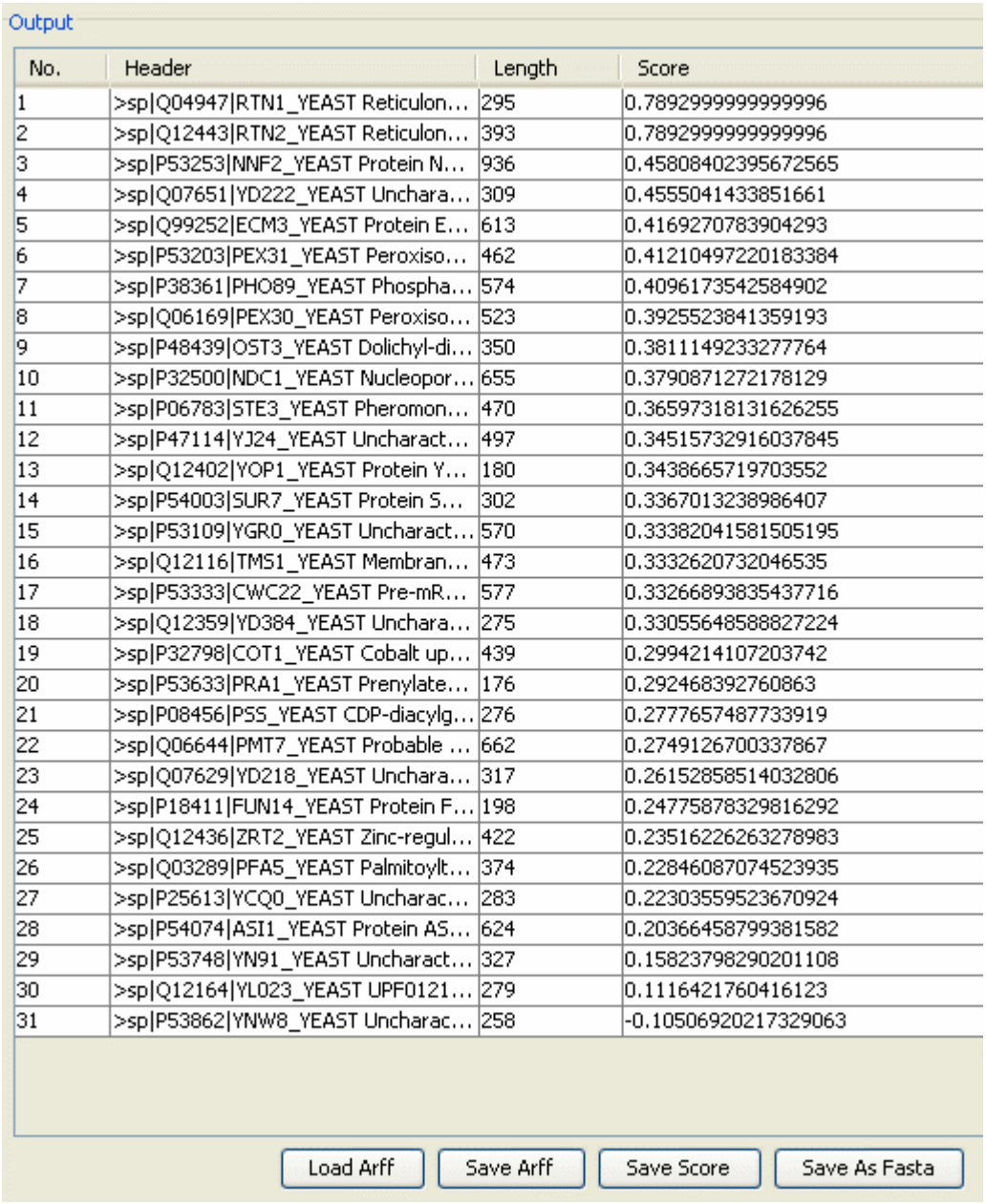


Figure 5. Results

REFERENCES

Voeltz GK, Prinz WA, Shibata Y, Rist JM, Rapoport TA. 2006. A Class of Membrane Proteins Shaping the Tubular Endoplasmic Reticulum. *Cell* **124**: 573-586