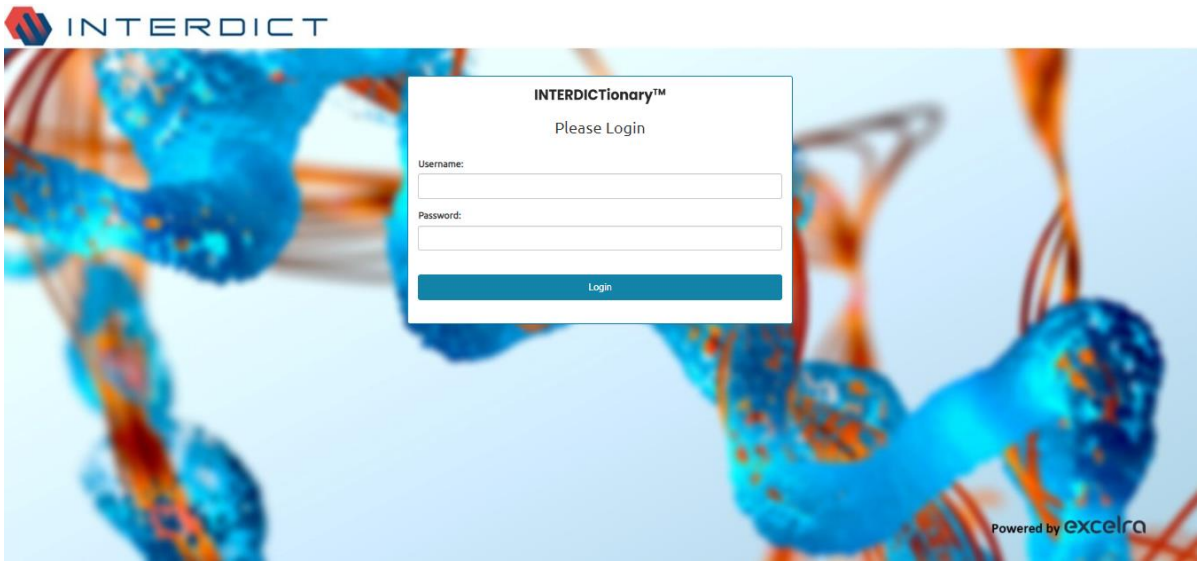
INTERDICTionary™

User Manual

Version 1.0

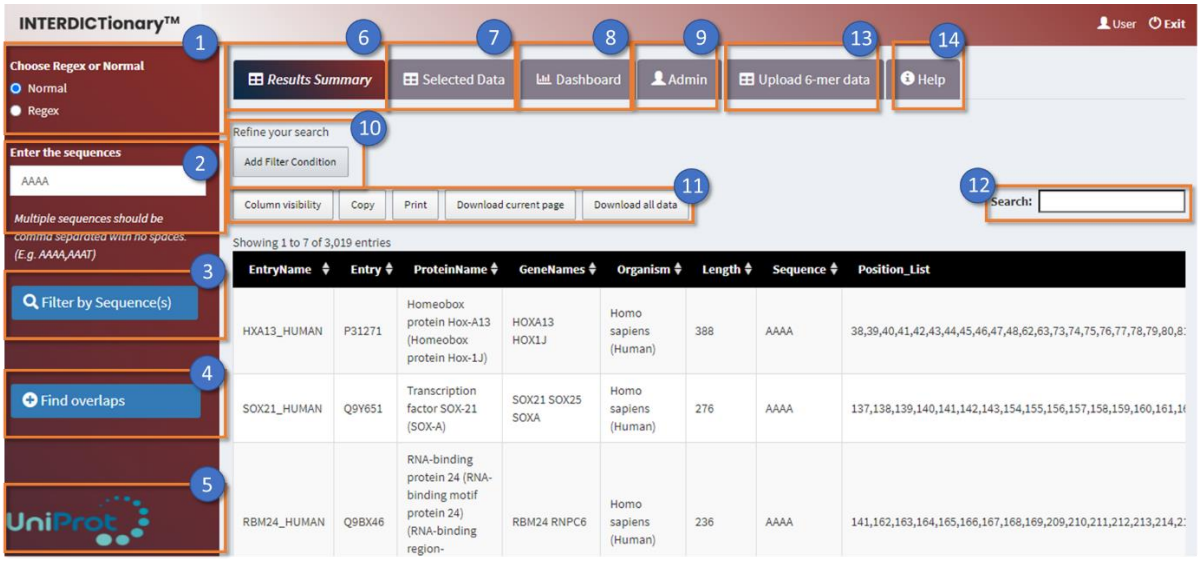
Contents

Accessing the INTERDICTionary Application



URL: https://interdictionary.excelra.net/

Home page after logging in



The image above shows the view post signing-in to the application. The details on the buttons 8(tagged with numbers) can be referred below:

1. Query
    a. Normal
    User can enter the n number of sequences with comma separated.
        i. E.g. AAAA,AANA, AACA

    b. Regex

In order to search manually for multiple sequences in a single search, the application also provides an option to perform Regex-based search. Through this, user can obtain results in a single click. The user has to make sure that he is not clubbing multiple different sequences separated by comma.

E.g. **^PP[G,A,V].T$**

The above query would search the results for all sequences starting with P, having P at 2nd position, having either G or A or V at 3rd position & ending with T.

2. Input box

The box facilitates the user to enter peptide sequence of interest. He has to make sure that they are either 4/5 amino acids long else warning would be flashed as the application houses only 4/5 length sequences results.

3. Filter by sequence

Once, entering sequences in the input box, user has to click Filter by sequence(s) button to direct the application to show results.

4. Find overlap

User can click on this action button to find the overlapping results (based on Entry) in case he wants to query multiple sequences. This will generate 2 more tables in same page if the overlap exist. “Overlapped Entries for Sequences” show Entries where multiple sequences exist. “Detailed data for Overlapped Entries” will show all the data for multiple overlapping Entries.

5. UniProt

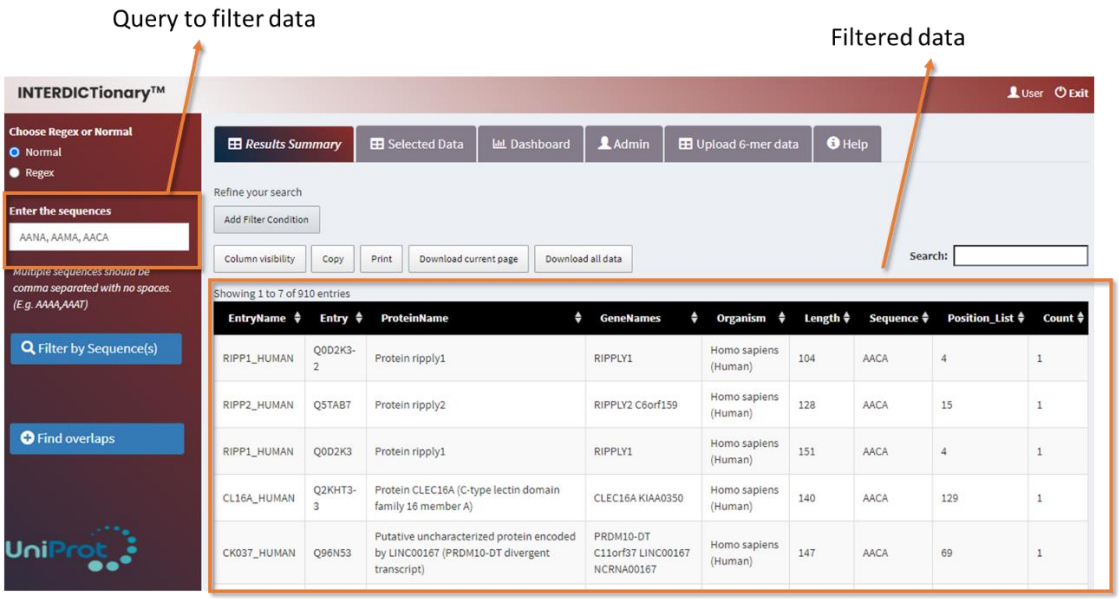
User can click on this UniProt logo, it redirects to UniProt website https://www.uniprot.org/id-mapping

Tab description

In this application there are 4-tab panels

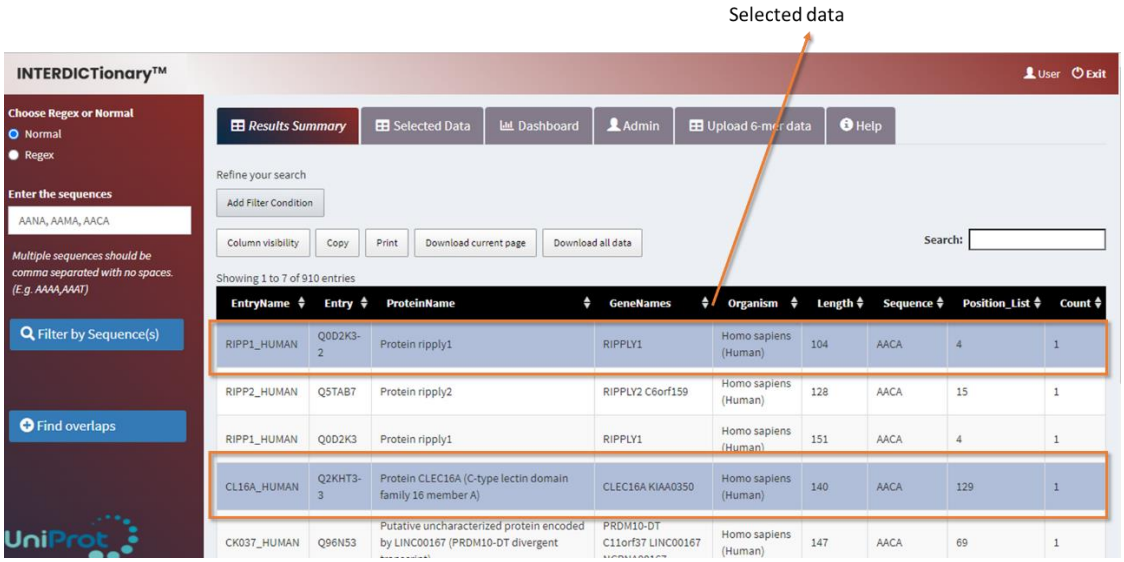
6. Results Summary

Shows the filtered data which is generated using query. The rows are clickable & allows the user to see detailed results in the *Selected Data* Tab.

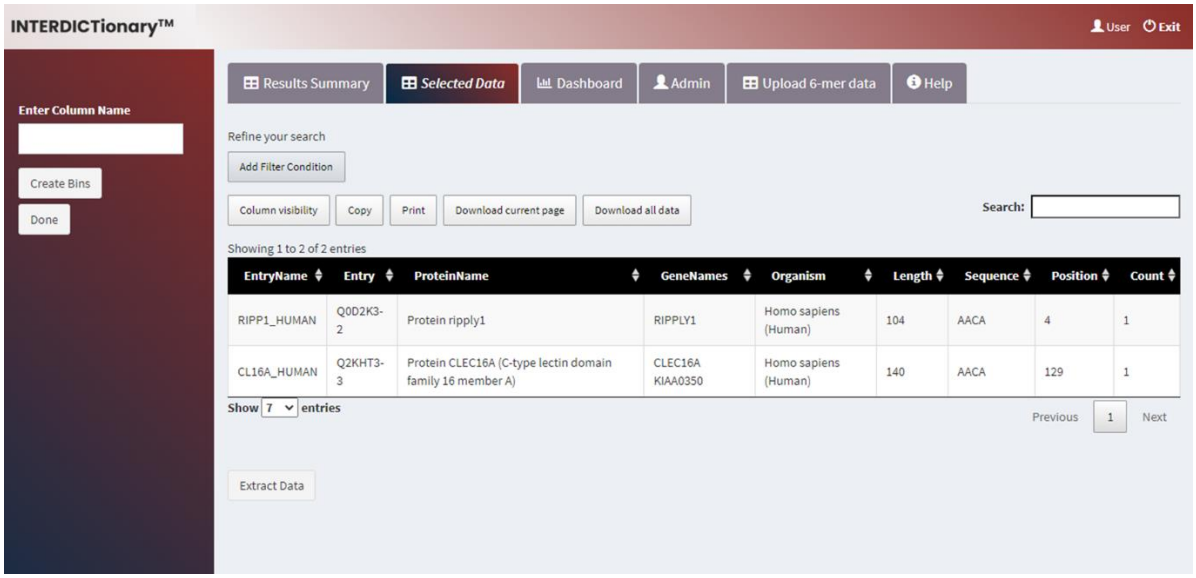


7. Selected Data

- Shows the selected rows which are selected from **Results Summary**, for this user must click on the **Extract Data**

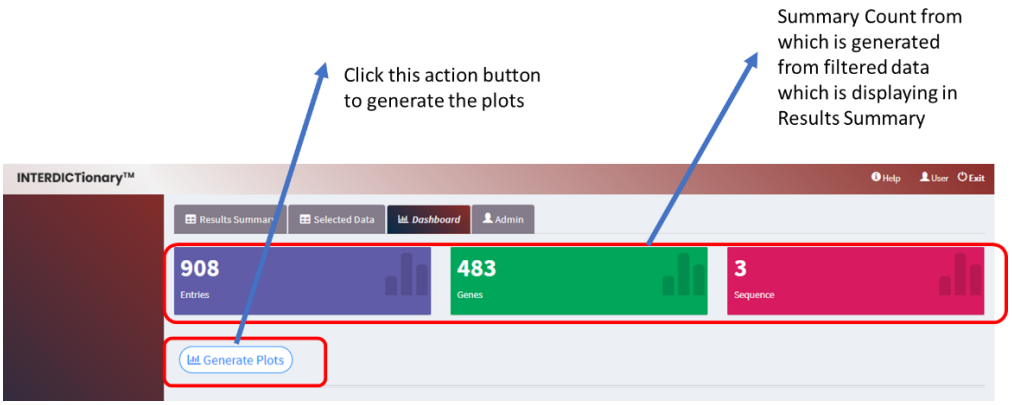


- Go to **Selected Data** tab-panel and click on **Extract Data** button then user can see the data like below

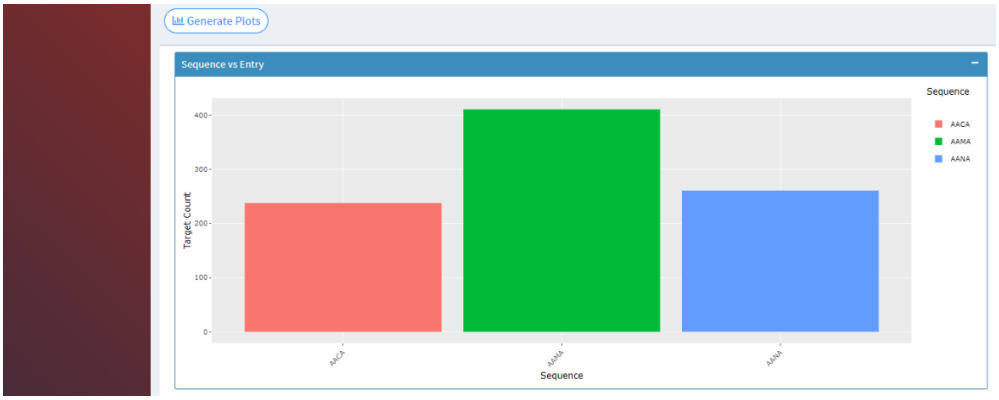


8. Dashboard

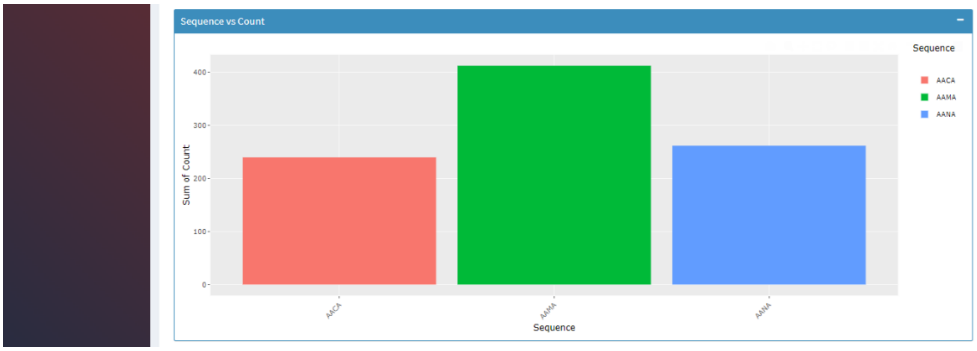
- Dashboard shows list of top 100 maximum occurring sequences
- It also shows list of top 100 least occurring sequences.
- Dashboard will generate the plots and summary counts based on filtered data
    i. Summary counts will be displayed automatically
    ii. To generate the plots user must click on the Generate Plots button
- Dashboard will be changed dynamically after changed the query in Results Summary



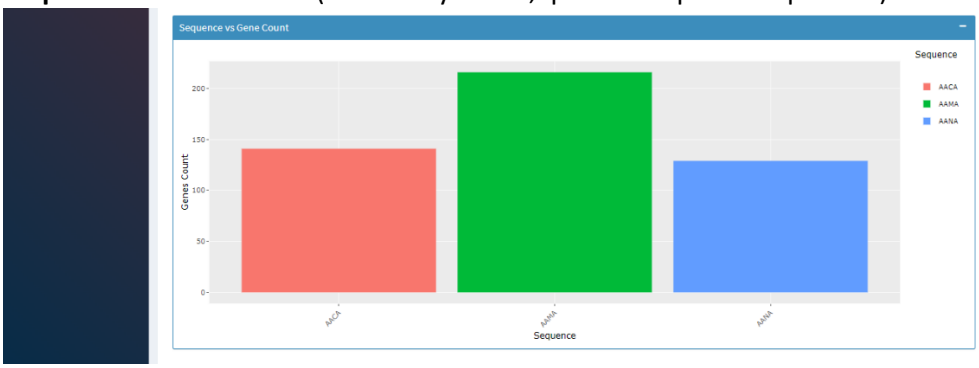
Sequence vs Entry (In how many Entries the queried sequence is present)



Sequence vs Count (frequency of sequence occurring)

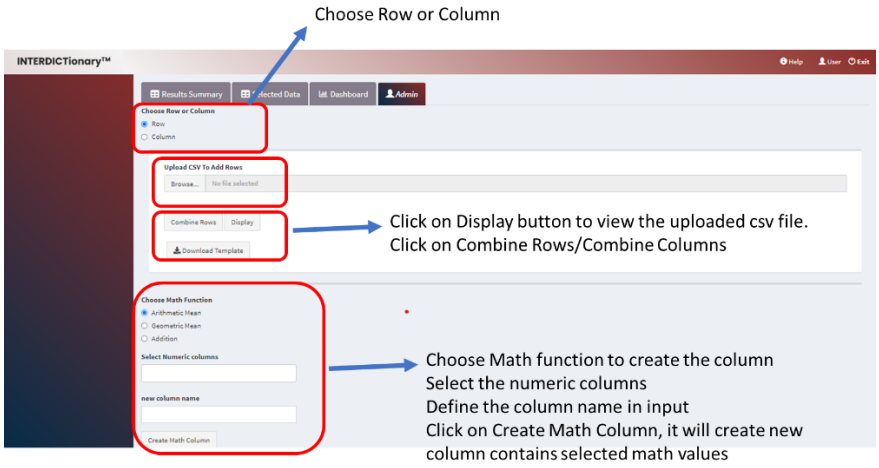


Sequence vs Gene Count (How many Genes, queried sequence is present)



9. Admin

- Admin tab-panel will be accessible only by admin
- Admin panel will contain multiple options to manipulate the data which is presented in *Selected Data* tab-panel



i. Add Row
    1. Download the template and add data to be appended to the template and upload it by clicking on the Combine Rows button
    2. Results will be displayed in the *Selected Data* tab-panel

ii. Add Column
    1. Download the template and add newer data to the template and upload it by clicking on the Combine Column button
    2. Results will be displayed in the *Selected Data* tab-panel

iii. Add Match Column
    1. Choose Math Function
        a. Arithmetic Mean
            i. Will calculate Arithmetic Mean of two or more columns and creates the new column
        b. Geometric Mean
            i. Will calculate Geometric Mean of two or more columns and creates the new column
        c. Addition
            i. Will calculate summation of two or more columns and creates the new column
    2. New column name should be mentioned in the input box by the user.
    3. Manipulated data will be displayed in the *Selected Data* tab-panel

10. Refine your Search

- This option allows to place sequential filters on the data generated by input sequence. The user can place filters on either or multiple columns & get to see the desired output.

11. Additional Features

- *Column Visibility*: Allows the user to show/hide columns
- *Copy*: Allows the user to copy & place the data onto Clipboard

- *Print*: Allows the user to Print the data shown in the table
- *Download Current Page*: Allows the user to download the data shown in table on the current page
- *Download All data*: Allows the user to download entire data generated because of input sequence

12.Global Search

- Allows the user to search keyword in the entire table

13.Upload 6-mer data

- Allows the user to temporarily (Session-dependent) load data, place filters & run quick visual analysis on the sequences with 6 residues length.

14.Help

- Dedicated Tab holding Manual on using the application.