Restriction Analysis

From this chapter you can learn how to search for restriction sites on a DNA sequence.

The restriction sites found are stored as automatic annotations. This means that if the automatic annotations highlighting is enabled then the restiction sites are searched and highlighted for each nucleotide sequence opened. Refer Automatic Annotations Highlighting to learn more.

Open a DNA sequence in and click the following button on the Sequence View toolbar:

Alternatively, select either the Actions Analyze Find restriction sites item in the main menu or the Analyze Find restriction sites item in the context menu.

The Find restriction sites dialog appears:

| ilter by name: | | | | | | Open enzymes |
|---|--------------------------------------|--------------|-----------|--------------------|---|------------------|
| Name | Accession | Type | Sequence | Organizm / Details | | Export enzymes |
| A (0, 264) | | | | AaaI AxyI | | Export enzymes |
| ▷ B (2, 917) | | | | BacI BvuBI | E | Select All |
| C (1, 193) | | | | CacI CvnI | | |
| D (1, 31) | | | | DaqI Dsp1I | | Select None |
| E (1, 325) | | | | EacI EspHK30I | | |
| F (0, 63) | | | | F-CphI F-TevIV | | Select by lengt |
| G (0, 23) | | | | GalI GsuI | | Invert selection |
| H (1, 312) | | | | H-DreI HsuI | | |
| I (0, 61) | | | | I-AchMI I-Vdi141I | | Load selection |
| K (0, 35) | | | | KasI Kzo49I | - | Save selection |
| elected enzymes: | | | | | | Save selection |
| | DraI,EcoRI,HindII | I,PstI,SalI, | SmaI,XmaI | | | REBASE Info |
| 3amHI,BglII,ClaI, | DraI,EcoRI,HindII | I,PstI,SalI, | SmaI,XmaI | | | REBASE Info |
| 3amHI,BglII,ClaI, | | I,PstI,SalI, | SmaI,XmaI | A Maximum hits: | | REBASE Info |
| BamHI,BgIII,ClaI, | DraI,EcoRI,HindII ber of results: | I,PstI,SalI, | | A Maximum hits: | | |
| 3amHI,BgIII,ClaI, | DraI,EcoRI,HindII ber of results: | I,PstI,SalI, | | Maximum hits: 1 | | |
| BamHI,BgIII,ClaI, | DraI,EcoRI,HindII ber of results: | I,PstI,SalI, | | | | 2 文 |
| BamHI,BgIII,ClaI, Filter by numl Minimum hits: Exclude regio Region Wholes Circular molecu | DraI,EcoRI,HindII ber of results: | | | | | 2 🖈 |

You can see the list of restriction enzymes that can be used to search for restriction sites. The information about enzymes was obtained from the REBASE database. For each enzyme in the list a brief description is available (the accession ID in the database, the recognition sequence, etc.). If you're online you can get more detailed information about an enzyme selected by clicking the REBASE Info button.

- Selecting Restriction Enzymes
 Using Custom File with Enzymes
 Filtering by Number of Hits
 Excluding Region
 Circular Molecule
 Results