9/26/23, 4:50 PM PROSITE patterns



Bioinformatics

Molecular biology in the

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PROSITE pattern (as listed in the PA line):

The PA (PAttern) lines contains the definition of a PROSITE pattern. The patterns are described using the following conventions.

Definition:

- The standard IUPAC one-letter codes for the amino acids are used.
- The symbol 'x' is used for a position where any amino acid is accepted.
- · Ambiguities are indicated by listing the acceptable amino acids for a given position, between square parentheses '[]'. For example: [ALT] stands for Ala or Leu or Th
- Ambiguities are also indicated by listing between a pair of curly brackets '{}' the amino acids that are not accepted at a given position. For example: {AM} stands for except Ala and Met.

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- Each element in a pattern is separated from its neighbor by a '-'.
- Repetition of an element of the pattern can be indicated by following that element with a numerical value or a numerical range between parenthesis. Examples: x(3) c x-x, x(2,4) corresponds to x-x or x-x-x or x-x-x-x.
- When a pattern is restricted to either the N- or C-terminal of a sequence, that pattern either starts with a '<' symbol or respectively ends with a '>' symbol. In some rare PS00267 or PS00539), '>' can also occur inside square brackets for the C-terminal element. 'F-[GSTV]-P-R-L-[G>]' means that either 'F-[GSTV]-P-R-L-G' or 'F-[GS'] considered.
- A period ends the pattern.

Examples:

- $[AC]-x-V-x(4)-\{ED\}.$
 - This pattern is translated as: [Ala or Cys]-any-Val-any-any-any-any-fany but Glu or Asp}
- <A-x-[ST](2)-x(0,1)-V.
 - o This pattern, which must be in the N-terminal of the sequence ('<'), is translated as: Ala-any-[Ser or Thr]-[Ser or Thr]-(any or none)-Val

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Ralf Koebnik Institut für Genetik Abt. Pflanzengenetik Weinbergweg 10 <u>06120 Halle/Saale</u> Telefon: 0345 / 55 26 293 (Büro) bzw. 296 (Labor) Fax: 0345 / 55 27 151

Email: koebnik (at) gmx.de Please replace (at) by @.



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