biochemfusion
- Enabling biochemformatics

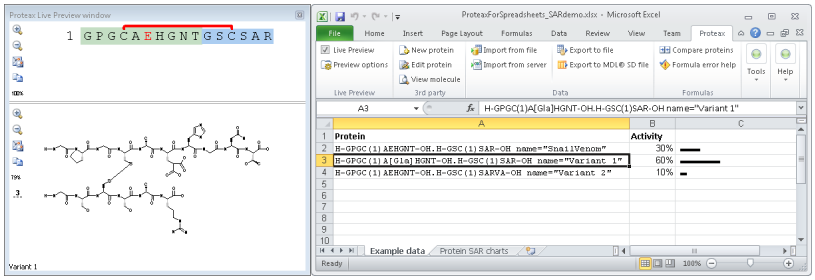
H-[MeBmt]LVGCRFVA

1 protein
4+ representations
0 problems

Proteax for Spreadsheets - protein variants made easy

Biochemfusion's **Proteax® for Spreadsheets** - the first tool that allows you to work directly with chemically or post-translationally modified protein sequences in Microsoft® Excel® and OpenOffice.org® Calc spreadsheets.

- Protein comparison
- Derivatives generation
- Protein SAR tables
- Chemical structure preview
- SD file export
- Modified residues, terminals, disulfide bridges and lactam cyclizations.
- Two-way editor link to Lighthouse Data's GPMAW.

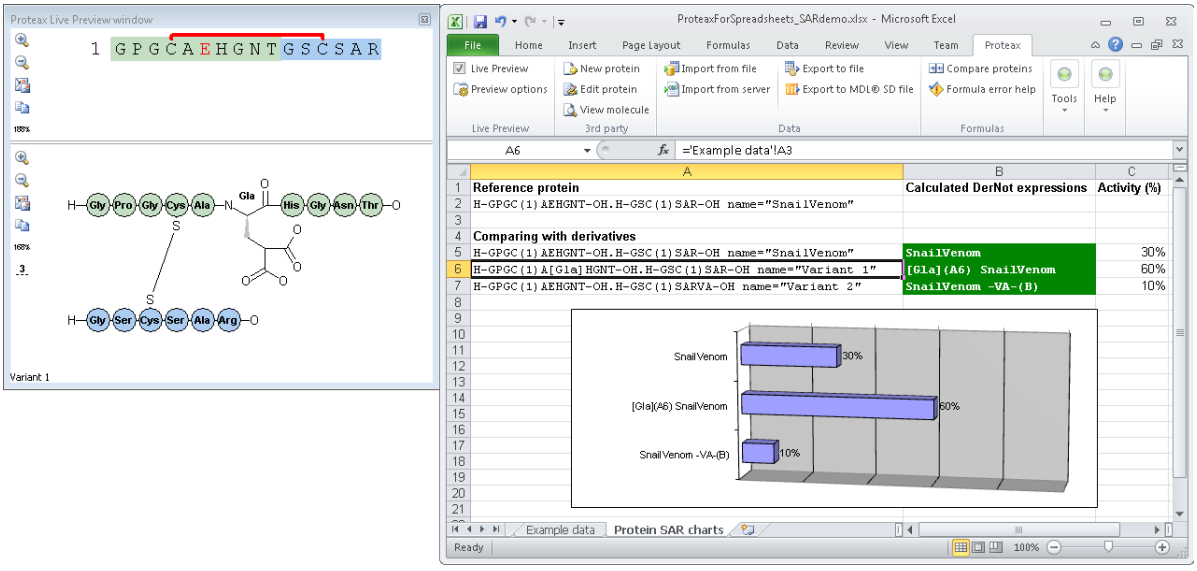


Proteax for Spreadsheets includes live graphical preview of sequences and corresponding chemical structures.

Creating and naming protein derivatives

Biochemfusion's **Der**ivatives **Not**ation (DerNot) expressions can be used to describe the difference between two protein entries.

DerNot expressions were designed to resemble the notation that IUPAC recommends for trivial naming of protein derivatives.



Calculated DerNot expressions can ease comparison of proteins in SAR tables. The live preview has been changed to show the condensed chemical structure in this screenshot.

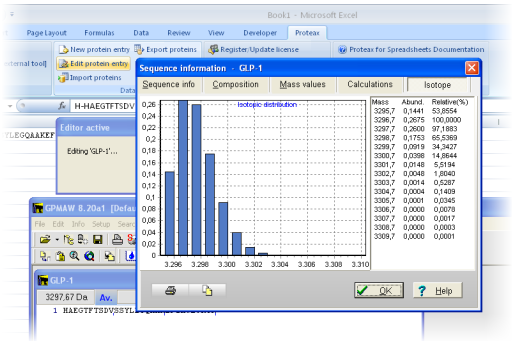
Proteax for Spreadsheets can apply a DerNot expression to a reference protein entry to produce a protein derivative.

Likewise, Proteax for Spreadsheets can calculate the DerNot expression that describes the difference between two protein entries.

Mass spectrometry analysis

Proteax for Spreadsheets can interface to Lighthouse Data's GPMAW. Protein entries can be sent to GPMAW and analyzed using GPMAW's suite of MS-related tools.

Changes made to a protein entry in GPMAW are reflected in your spreadsheet as soon as you press the "Save" button in GPMAW.



Isotopic distribution generated by GPMAW.

Database-ready by design

Protein entries used in Proteax for Spreadsheets are fully compatible with the Proteax Cartridge for Oracle® databases. This makes it easy to scale up from simple sharing of spreadsheets to a true multi-user relational database.

Proteax Cartridge contains the same protein-related functions as Proteax for Spreadsheets, easing communication between spreadsheet users and server-side developers.

Industry standard formats

Proteax accepts protein entries in the following standard protein file formats:

- UniProt - the UniProt Consortium http://www.uniprot.org
- GPMAW - by Lighthouse Data http://www.gpmaw.com
- FASTA - (unmodified plain sequences only) http://www.ncbi.nlm.nih.gov/blast/fasta.shtml

Simple modified peptide in PLN format:
`H-AC(1)D[Gla]F-OH.H-EGC(1)GK-OH`

Besides these industry standard formats, Biochemfusion's PLN (Protein Line Notation) format expresses complex protein structures as a single line of text. Perfect for spreadsheets and e-mail exchange.

Any protein entry read by Proteax for Spreadsheets can be converted into PLN, UniProt, or GPMAW format without chemical information loss.

System requirements

Proteax for Spreadsheets will install on systems that are already running

- Windows® 2000, XP, Vista, or Windows 7
- Microsoft Excel 2010, 2007, 2003 or OpenOffice.org Calc 3.x

You do *not* need administrator privileges to install Proteax for Spreadsheets.

Both 32- and 64-bit versions of Windows and MS Office are supported.
