decryptor

DECRYPTOR: A SYSTEM FOR THE IDENTIFICATION OF PROTEIN VARIANTS FROM TANDEM MASS SPECTRA



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Abstract

Shotgun proteomics is the technology of choice for exploratory, large-scale studies of the proteome.In a typical experiment, the aim is to establish **protein expression profiles** for various biological conditions.However, the **genetic variation is routinely neglected** at the protein level.

Decryptor allows the detection of protein variants in standard shotgun proteomics data.

This **poster shows the required steps** to perform such an analysis of MS/MS spectra.

SIGNING UP

Navigate to http://decryptor.imtm.cz.

decryptor (1.1.3) analyses data from tandem mass spectrometry of human proteome for presence of point alterations. Subsequently, decryptor deduces DNA/mRNA alterations whenever possible.

See example. (email: *guest*, password: *guest*). To use decryptor, you need to log-in. If not registered yet, sign-up.

Materials | Release notes | Changelog | Acknowledgement | Contact us



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Register.

First Name

Miroslav

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Emall Address

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Password

Confirm your email address.

Welcome miroslav.hruska@upol.cz!

You can confirm your email through the link below:

Confirm my account

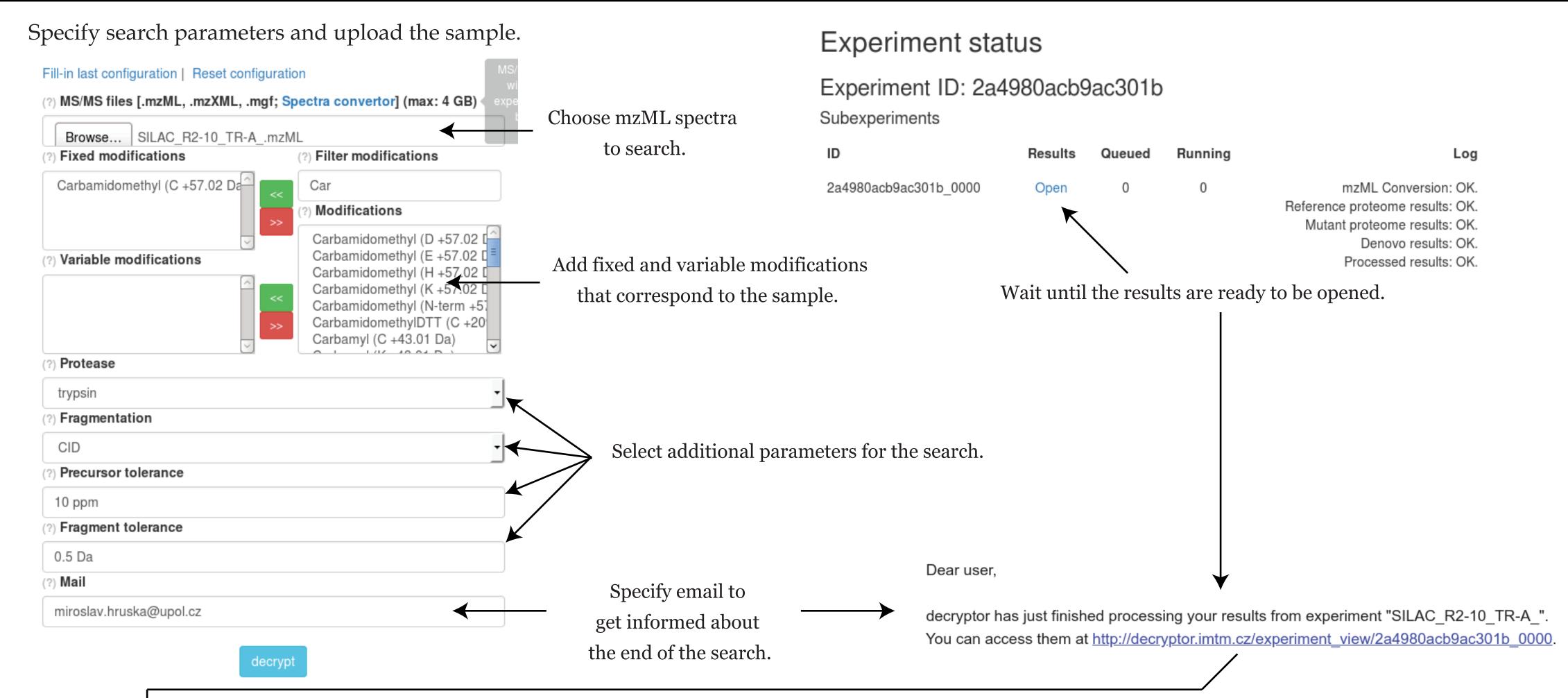
Log in.

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Login

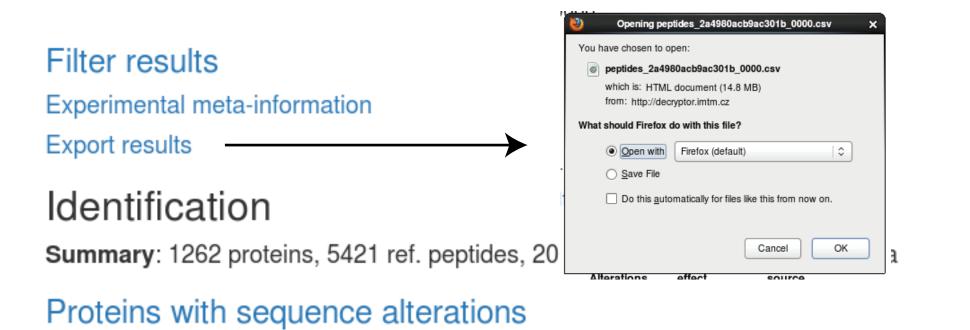
Register

DATA SEARCHING

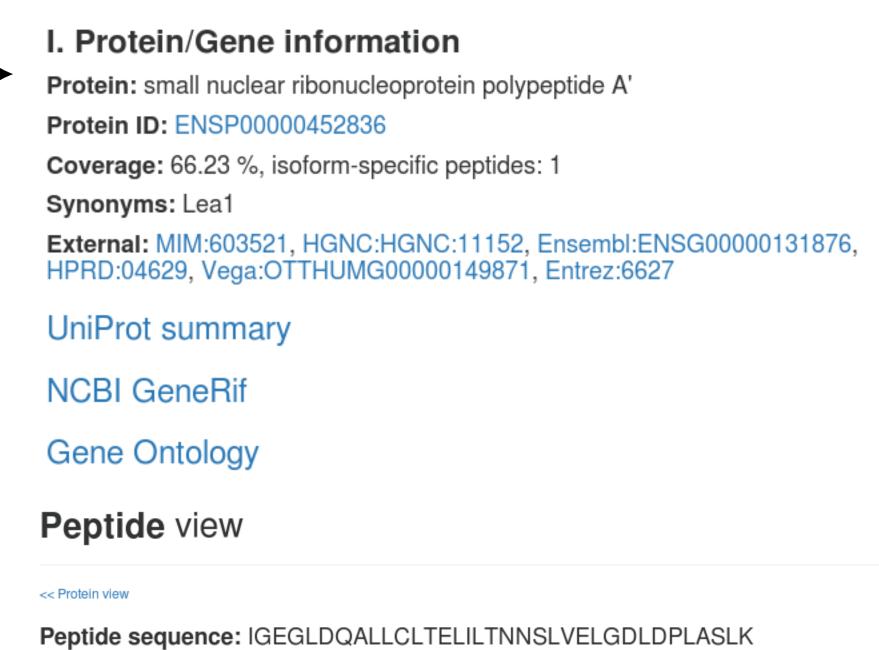


DETECTION RESULTS

Browse the results using multiple views, or export them.



Spectra / Peptides Detrimental ⁺ DNA/mRNA alteration Disease Unique Alterations effect Protein peptides source relevance COSMIC v.68—large_intestine 22/10/10 73: T>I 1.52 electron-transfer-171: I>L flavoprotein, alpha polypeptide (ETFA) small nuclear 20/6/6 87: P>L COSMIC v.68-lung 0.76 ICGC 15.1-LUSC-US ribonucleoprotein polypeptide A' (SNRPA1)



Peptide-spectrum matches

sequence	modifications	charge	MZ	RT	XTandem -Log ₁₀ E-Value	Alteration	Alternative intepretation of alteration
IGEGLDQAL <mark>L</mark> CLTELILTNNSLVELGDLDPLASLK	11:(Carbamidomethyl)	3	1251.01	5978.7263	2.19382	P>L (16.0313 Da)	[9] P:Oxidation or Hydroxylation [10] C:Oxidation or Hydroxylation