

Proteomics with Isotope Ratio Quantification

Track Code: 60036

Categories:

- Chemical Engineering

Keywords:

- Chemical Engineering

Protein analyzing is of major importance in the field of genetic research. When analyzing complex proteins the typical strategy is to cleave the proteins with an enzyme and then search the DNA database for fragments that match the mass of the signature peptide. Too often the complex mixtures contain thousands of proteins that may have a hundred thousand or more signature peptides. This causes the process to be extremely lengthy.

Researchers at Purdue University have developed a new method for this process. This method is as sensitive to changes in very dilute samples as it is with those that are present with great abundance. This approach also creates an internal standard that makes it easier to measure the changes at these low levels. By targeting the specific signature peptides it is possible to reduce the amount of time necessary for identification.

Advantages:

- Extremely sensitive detection
- Reduced detection time

Potential Applications:

- Database Management
- Genetics

People:

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Intellectual Property:

Application Date: September 11, 2008
Type: DIV-Patent
Country of Filing: Australia
Patent Number: 2008213716
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Application Date: May 4, 2001
Type: NATL-Patent
Country of Filing: Canada
Patent Number: 2,402,871
Issue Date: August 26, 2011

Application Date: September 14, 2009
Type: DIV-Patent
Country of Filing: Israel
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Application Date: May 4, 2001
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Country of Filing: Israel
Patent Number: 152620
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Application Date: September 9, 2005
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Country of Filing: Australia
Patent Number: 2005209637
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Application Date: May 4, 2001
Type: NATL-Patent
Country of Filing: European Patent
Patent Number: 1311858
Issue Date: November 2, 2006

Application Date: May 4, 2001
Type: EP-Patent
Country of Filing: United Kingdom
Patent Number: 1311858
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Application Date: May 4, 2001
Type: EP-Patent
Country of Filing: Ireland
Patent Number: 1311858

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Application Date: September 16, 2002

Type: DIV-Patent

Country of Filing: United States

Patent Number: 6,872,575

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Application Date: May 4, 2001

Type: Utility Patent

Country of Filing: United States

Patent Number: 6,864,099

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Type: NATL-Patent

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Country of Filing: Japan

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Country of Filing: Hong Kong

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Application Date: May 4, 2001

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