

Absolute Protein Quantification (SRM)

- *In complex biological samples (plasma, urine etc)*
- *Without the need of antibodies*
- *With high selectivity*
- *Discriminating even isoforms and PTMs*



Quantification of Biomarker Candidates

TOPLAB supports its clients to evaluate and quantify biomarker candidates for clinical diagnosis, pre-clinical and clinical drug development and in system biology projects.

- **Direct exact quantification of proteins in tissues, plasma, CSF and other body fluids**
- **Discriminating even protein isoforms and PTMs**
- **Without the need of antibodies.**
- **Selective reaction monitoring (SRM)**

For the many cases where no commercial assays for a given set of protein biomarker candidates is available, the SRM technique offers a faster and more cost-effective alternative to enzyme-linked immune-assay (ELISA) development approaches.

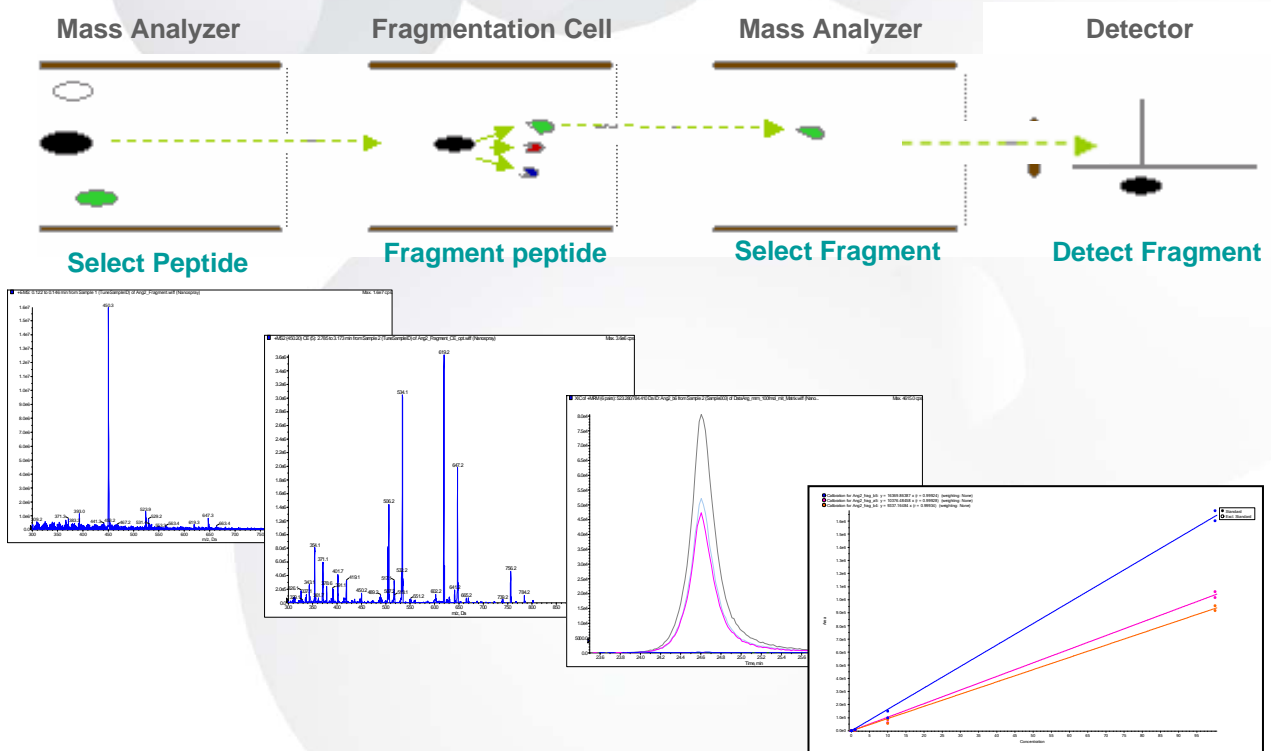
SRM assays can be developed within a few days and enable the quantitative and parallel quantification of a large numbers of biomarker candidates using a multiplex high-throughput platform.

This technique has the potential to release significant value from all those genomics, proteomics and other biomarker candidates that have not reached the validation stage yet.

Even where antibodies reach their limits, while exhibiting cross-reactivity or being not able to discriminate specific post translational modifications or protein isoforms the mass-spectrometry-based technique proves its enormous potential where high selectivity is required.

The discovery of a enormous number of biomarker candidates both in the academic field and in industry has created the need to validate these potential markers in large-scale projects to select the most promising for further pre-clinical and clinical development

Multiple Reaction Monitoring (SRM)



- Highly sensitive (down to 10 amol) method for quantifying a set of known proteins (up to 50) in very complex mixtures (e.g. plasma, urine, cell lysates) in a single analysis.
- Linear dynamic range of 4 orders of magnitude
- The best in class technology for protein quantification
- Absolute quantification by adding stable isotope-labeled standard peptides in a defined amount
- No antibody required, replaces ELISAs with even higher selectivity
- Perfect tool to validate potential biomarkers