

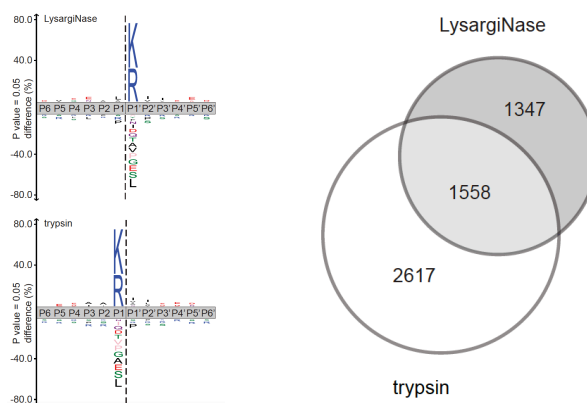
Dear Colleague,

We would like to draw your attention to a recent publication in Nature Methods, which is likely to greatly improve proteomics analyses due to the discovery of the enormous possibilities of a novel enzyme, **LysargiNase**, for sample preparation as a compliment to trypsin. **LysargiNase** efficiently cleaves protein and peptide substrates N-terminal of lysines and arginines with even higher specificity than trypsin (including methylated residues).

LysargiNase mirrors trypsin for protein C-terminal and methylation-site identification

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To improve proteome coverage and protein C-terminal identification, we characterized the *Methanosarcina acetivorans* thermophilic proteinase LysargiNase, which cleaves before lysine and arginine up to 55 °C. Unlike trypsin, LysargiNase-generated peptides had N-terminal lysine or arginine residues and fragmented with b ion-dominated spectra. This improved protein C terminal-peptide identification and several arginine-rich phosphosite assignments. Notably, cleavage also occurred at methylated or dimethylated lysine and arginine, facilitating detection of these epigenetic modifications.



Huesgen, P.F., Lange, P.F., Rogers, L.D., Solis, N., Eckhardt, U., Kleifeld, O., Goulas, T., Gomis-Rüth, F.X., and Overall, C.M. 2015. *Nature Methods* 12, 55-58

LysargiNase is perfectly complementary to trypsin for both small-scale and large-scale experiments ranging from simple peptide mass fingerprinting to shotgun, and specialized application for the identification of protein C-termini, protease cleavage sites, key phospho-site motifs and epigenetically marked protein sites.

LysargiNase is also thermophilic and so digestions can be quickly performed at elevated temperatures to improve digestion of highly folded proteins.

In order to provide the proteomics community with this valuable new reagent we have decided to produce and distribute **LysargiNase** ourselves at conditions that should enable everybody to employ it for routine use.

LysargiNase is available now and ships for: 75 € + shipment costs for 100 micrograms
350 € + shipment costs for 1 milligram

Orders can be made through e-mail sent to lysargiNase@ibmb.csic.es providing exact shipping address.

Full sample preparation instructions will be sent.

Best wishes,

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