gelcompany

Perfect for high throughput

Down stream compatible with Mass Spectrometry

Environmentally friendly biodegradable natural fluorophore

Determine the kinetics of proteolytic digestions

Suitable for all proteases

Suitable for fluorometers, laser or CCD based imagers

Suitable for all proteins

Monitor the progress of your digestion in real time

Don't waste valuable MS-time through incomplete or failed tryptic digestions

Simple to use Add **LavaDigest™** and monitor fluorescence

LavaDigest™ - The first fully MS compatible assay for real-time monitoring of proteolysis.

Monitoring tryptic digests in situ using LavaDigest

LavaDigest is a very simple assay that provides accurate, real time monitoring of proteolysis.
Failure or partial digestion can waste valuable MS-time and make results difficult to interpret.
Techniques for monitoring proteolytic digestions are slow, cumbersome and unsuitable for real-time monitoring.

Environmentally Friendly Biodegradable natural fluorophore

Features

LavaDigest is a fluorescence based assay for real time monitoring of proteolysis. It...

- provides simple real time monitoring of proteolytic digestion.
- is fully compatible with MS .
- replaces other time consuming/expensive methods of monitoring proteolytic digestion.

Perfect for High Throughput

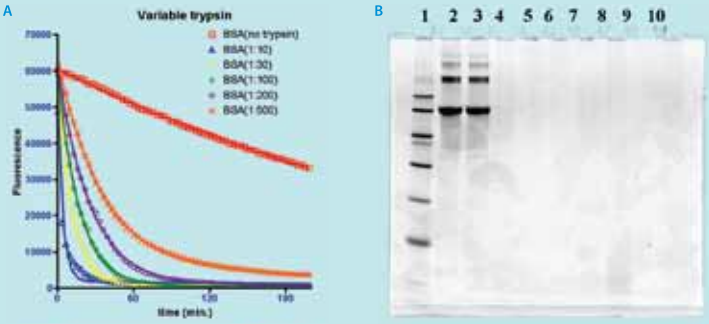
It's easy to use

Mix, sample, trypsin and LavaDigest

Monitor fluoroescence

Analyse by MS

Reliably monitors tryptic digestion



Real-time monitoring of digestion of BSA with different ratios of trypsin (A) and SDS-PAGE validation (B) of the sub-samples taken at t = 200 minutes.

Concentrations of BSA to trypsin of 1:10, 1:30, 1:100, 1:200 and 1:500 were followed with LavaDigest. (A) After 200 minutes only the 1:500 concentration was not completely digested as indicated by SDS-PAGE (B). Lane 1, LWM marker; 2 and 3, BSA without trypsin added; trypsin added to BSA at ratios of 1:10 (lane 4), 1:30 (lane 5), 1:100 (lane 6), 1:200 (lane 7), 1:500 (lane 7). Lane 9 trypsin only at a 1:10 ratio; lane 10, trypsin only at a 1:30 ratio.

The sample used for the assay can be used for down-stream processing

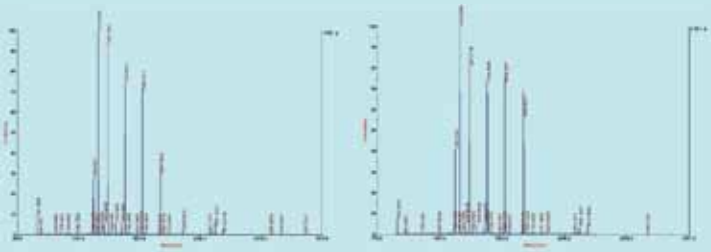
Number of peptides for BSA identification				
Time of Digestion (min)	With LavaDigest	Percent Coverage	Without LavaDigest	Percent Coverage
0	0	0	0	0
15	17	39	18	33
30	16	31	22	40
60	19	35	18	35
180	21	38	27	49
360	28	50	24	41
overnight	35	54	46	64

MS analysis of sub-sampled BSA tryptic digests with and without the inclusion of LavaDigest from time 0 (no trypsin added) to overnight (18hrs)

Typical MALDI-MS of peptides generated by tryptic digestion of BSA

A LavaDigest

B Without LavaDigest



Simple to use
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and monitor
fluorescence

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www.gelcompany.com
Contact us for further details

FLP-031020-09