



PPS Silent Surfactant solubilizes membrane proteins and cleaves to eliminate detergent interference.

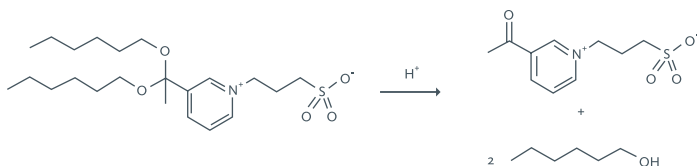
FEATURES

- Reduces detergent interference in mass spectrometry
- Disrupts cell membranes
- Solubilizes hydrophobic proteins
- Improves enzymatic efficiency
- Improves MS analysis of complex protein mixtures
- Improves membrane protein ID
- Hydrolyzes into soluble, non-surfactant cleavage products

APPLICATION

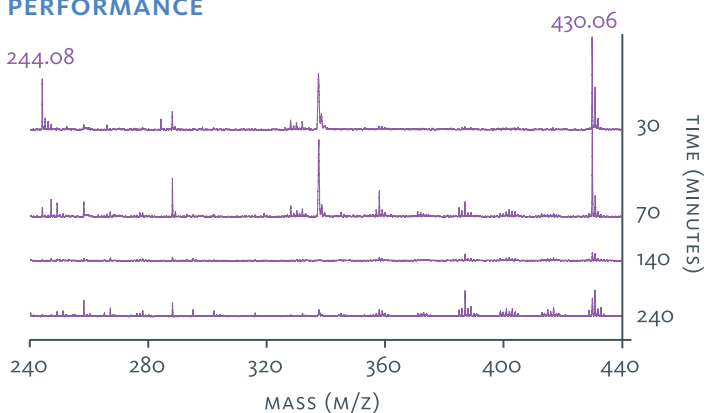
- Increase shotgun proteomics sequence coverage
- Enable membrane proteomic analysis of cells captured by LCM
- Potentiate trypsin digestion of membrane proteins
- Enable iTRAQ quantitation of insoluble proteins

HOW IT WORKS

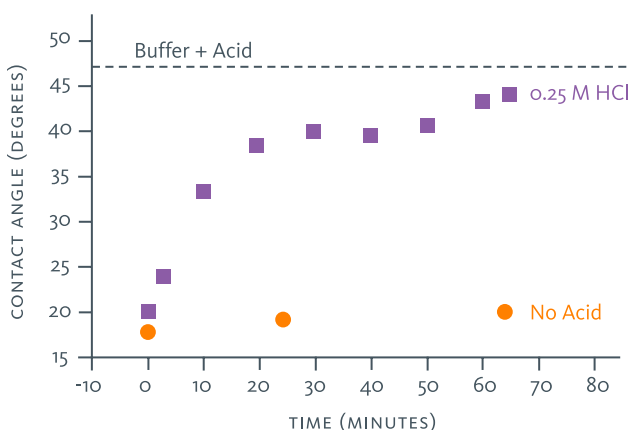


PPS Silent Surfactant is acid-cleavable so it can be removed by hydrolysis. The intact molecule is zwitterionic, so PPS Silent Surfactant can also be removed by SCX HPLC.

PERFORMANCE



Hydrolysis of PPS Silent Surfactant clears detergent interference. Acid hydrolysis of PPS Silent Surfactant clears detergent interference, enabling mass spectrometry analysis of peptides resulting from trypsin digestion of complex protein mixtures.



Hydrolysis products are non-surfactant. Loss of surfactant property upon hydrolytic cleavage. Cleavage occurs within 30 minutes in 0.25 M HCl.

WHAT SCIENTISTS SAY

“PPS outperforms everything else we’ve used to generate peptides from complex protein mixtures.” — Mike MacCoss PhD, University of Washington

“The PPS reagent allows us to capture cells, efficiently extract proteins, and digest, all in a single tube that is directly compatible with downstream LC and MS analysis without the need for involved clean-up that would result in substantial losses of clinically valuable material.” — Thomas P. Conrads, PhD, University of Pittsburgh Cancer Institute

“PPS enhanced recovery of large hydrophobic proteins by reducing peptide interactions with plasma proteins and increasing solubility. PPS allows us to use a more sensitive protocol for analyte measurement.”

— Yan Wang, PhD, Amylin Pharmaceuticals

“The proteins we study are tough to solubilize and digest, but PPS Silent Surfactant is strong enough to give us good digestions and recoveries. It is clear from our spectra that PPS Silent Surfactant does not interfere with subsequent labeling of peptides with iTRAQ.” — Joachim Uys, PhD, Medical University of South Carolina



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