

Product Information | Certification of Analysis

Product Information

CAS: 881640-19-3

Lot No.

Digest Buffer, Mass Spec Grade

Part No.	Name	Size/pkg
HLS DIG001B	Digest Buffer, Mass Spec Grade	5 mg

Description: Digest Buffer is a BT surfactant-based buffer optimized for proteomics and biopharmaceutical research. It facilitates protein denaturation, reduction, and alkylation, followed by enzymatic hydrolysis to convert proteins into peptides with high efficiency and recovery. The surfactant is then degraded by formic acid, allowing direct peptide analysis via mass spectrometry without the need for desalting, minimizing peptide loss. Ideal for proteomics, biopharmaceuticals, and single-cell research.

Physical Appearance: Lyophilized powder with 5 mg BT Surfactant and 48 mg ammonium bicarbonate.

Molecular Weight: 393.28 Da.

Resuspension Buffer: Dissolve in 12 mL MS Grade water.

Storage Conditions: Powder at -20 °C, reconstituted solution at 4 °C for 6 months.

Shelf life: 24 months at -80 °C as a solution; long-term stable at -20 °C as powder.

pH Range: pH 7-9 is used for proteolysis experiments, will degrade and precipitate in solution at pH 2-4.

Reference Protocol:

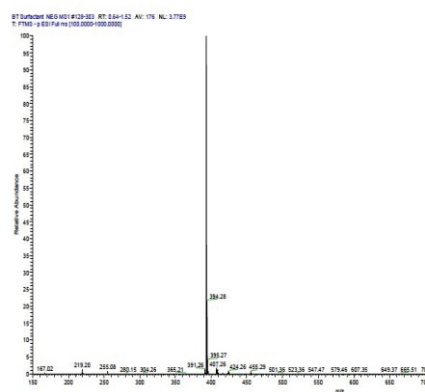
Add 100 µL Digest Buffer to 10 µL (50 µg) protein sample and mix well. Add 1 µg MS-grade protease and incubate at 42°C for 40 minutes. Then, add 3 µL formic acid and incubate at 42°C for 20 minutes.

Quality Control

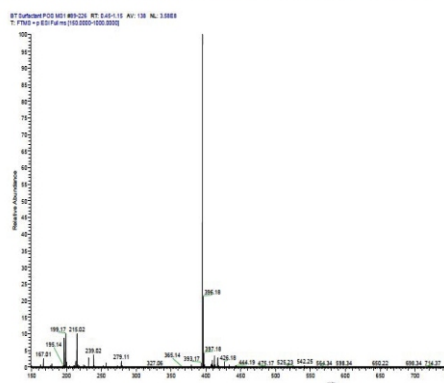
Purity: > 99.9% BT Surfactant peak area, analyzed by Thermo QE HF mass spectrometry coupled with positive ion mode ESI.

Degradation: 0.1% BT Surfactant peak area after incubation with 0.2% (v/v) formic acid at 42°C for 30 minutes, analyzed by QE HF mass spectrometry using negative ion mode ESI.

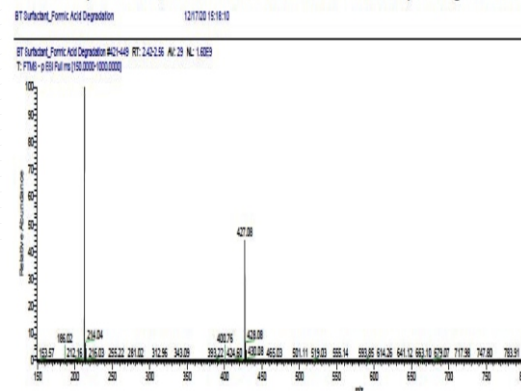
ESI- MS1/MS2 Mass Spec. for BT Surfactant Finish Product



ESI+ MS1/MS2 Mass Spec. and LC/MS for BT Surfactant Finish Product



ESI- Mass Spec. and LC/MS for BT Surfactant Finish Product by FA Degradation



QA Manager Signature: