

Product Information | Certification of Analysis

| Product Information

CAS: 881640-19-3
Lot No.

BT Surfactant | Mass Spec Grade

Part No.	Name	Size
HLS BTS001C	BT Surfactant	5 mg

Description: Protein denaturation and enzymolysis are essential experimental steps in analyzing peptides and glycans of biopharmaceutical antibodies and proteomics. The highly structural characteristics of proteins in their natural forms pose obstacles for enzymes to reach the cutting sites. In order to expose the proteins' enzymatic cutting sites and make them effectively interact with the enzymes, proteins must undergo complete denaturation, reductive alkylation, and appropriate enzymatic reaction. Common denaturants, including urea, guanidine hydrochloride, and SDS, will carry out specific chemical modifications of the protein, such as carbamylation, which may cause the error in polypeptide identification. However, the **BT Surfactant** can effectively avoid many unfavorable post-translational modifications after protein denaturation.

Physical Appearance: Lyophilized powder

Molecular Weight: 393.28 Da

Resuspension Buffer (reference): Resuspend 5 mg BT Surfactant powder in 167 μ L user's buffer (pH 8.0) or double-distilled water to get 3% (w/v) solution.

Storage Conditions: Powder at -20 °C, reconstituted solution at -80 °C

Shelf Life: 24 months at -80 °C as solution; long-term effective at -20 °C as powder

pH Range: Maximally active for enzymatic reaction at pH 7-9; degrade and precipitate at pH 2-4.

Temperature: < 1% BT Surfactant peak area after incubation at 37 °C for 4 hours; < 5% BT Surfactant peak are after incubation at 95 °C for 10 min.

Reference Procedure:

1. Denature protein samples in 1-2% (w/v) **BT Surfactant** solution.
2. Digest proteins with user's protease in 0.1% (w/v) BT Surfactant solution.

BT Surfactant's Influence on common proteases:

No observable effects on **Trypsin** activity in < 2% BT Surfactant.

No observable effects on **rLys C** activity in < 1% BT Surfactant.

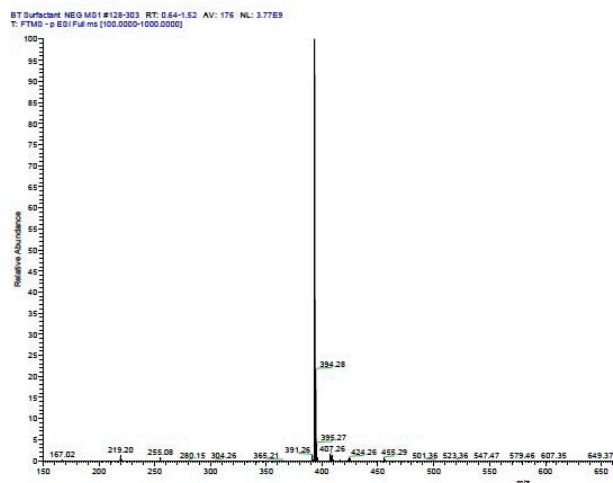
No observable effects on **rPNGase F** activity in < 1% BT Surfactant.

| Quality Control

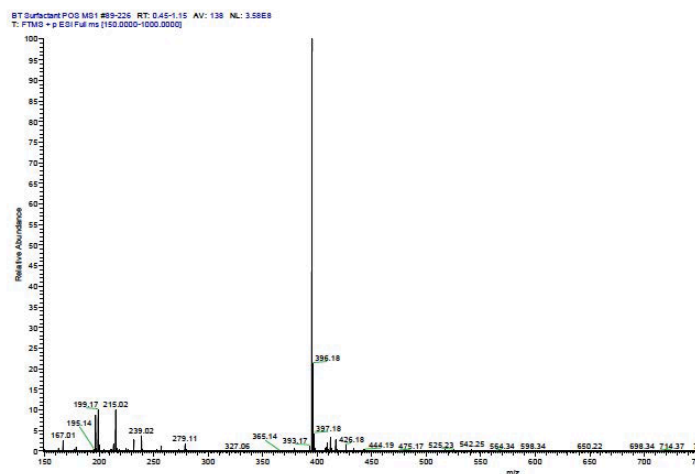
Purity: > 99.9% BT Surfactant peak area, analyzed by Thermo QE HF mass spectrometry coupled with positive ion mode ESI.

Degradation: 0.1% BT Surfactant peak area after 0.2% (v/v) formic acid incubation at 45 °C for 30 min, analyzed by QEHF mass spectrometry coupled with 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

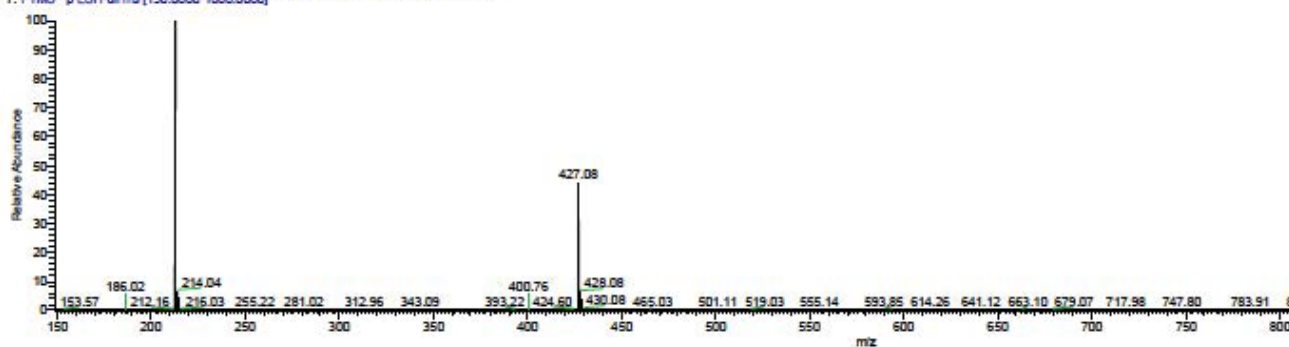


ESI- Mass Spec. and LC/MS for BT Surfactant Finish Product by FA Degradation

BT Surfactant_Formic Acid Degradation

12/17/20 15:18:10

BT Surfactant_Formic Acid Degradation #421-449 RT: 2.42-2.56 AV: 29 NL: 1.60E9
T: FTMS - p ESI Full ms [150.0000-1000.0000]



QA Manager Signature:

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