BT Surfactant, Mass Spec Grade

Cat. No. BT Surfactant-49 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
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.
Form	Lyophilized powder
Molecular Mass	393.28 Da
Purity	> 99.9 % BT Surfactant peak area, analyzed by Thermo QE HF mass spectrometry coupled with positive ion mode ESI.
Storage	Powder at -20 centigrade, reconstituted solution at -80 centigrade
CAS No.	881640-19-3
Shelf life	24 months at -80 centigrade as solution; long-term effective at -20 centigrade as

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	powder
Usage Notes	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.
Resuspension Buffer	Resuspend 5 mg BT Surfactant powder in 167 µL user's buffer (pH 8.0) or double-distilled water to get 3 % (w/v) solution.
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 centigrade for 4 hours; < 5 % BT Surfactant peak are after incubation at 95 centigrade for 10 minutes.
Degradation	0.1 % BT Surfactant peak area after 0.2 % (v/v) formic acid incubation at 45 centigrade for 30 minutes, analyzed by QEHF mass spectrometry coupled with negative ion mode ESI.

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