Product Information

Guanidine hydrochloride solution, 6M

SRE0066

Product Description

This product is a ready-to-use 6 M guanidine hydrochloride solution. Guanidine hydrochloride is commonly used as a denaturant, because of its ability to break hydrogen bonds between amino acid residues. By breaking these bonds, the 3D conformation of the protein is unfolded and the aqueous solubility of the protein is greatly increased. Once denatured, the protein can be easily reduced, modified, or analyzed, in a variety of procedures. Further processing of the sample can allow the proteins to be analyzed by other common protein analysis methods including mass spectrometry, electrophoresis, and enzymatic digests. Guanidine hydrochloride has also typically been used for the isolation of RNA, to denature globular proteins, and for protein refolding studies. It can also be used to facilitate the generation of tryptic peptides for analysis of complex protein samples.

Precautions and Disclaimer

For manufacturing, processing, or repacking. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

The product is a clear, colorless liquid and is supplied ready-to-use. The 6 M Guanidine hydrochloride solution may be used as a stock solution to prepare solutions of lower concentrations as appropriate (see Table 1).

Note: If precipitation is present in the 6 M buffer, warm the bottle to 37 °C and mix until completely dissolved prior to use.

Table 1. Dilution Table - Dilutions are based on a 10 mL volume of the 6 M Guanidine HCl solution.

Desired Molarity	Volume of water to add to 10 mL of 6 M Guanidine HCl solution	Final Volume
6 M	0.0 mL	10.0 mL
5 M	2.0 mL	12.0 mL
4 M	4.0 mL	14.0 mL
3 M	10.0 mL	20.0 mL
2 M	20.0 mL	30.0 mL
1 M	50.0 mL	60.0 mL

Storage/Stability

Store at Room Temperature

The product is stable for two years from the date of manufacture when stored at room temperature. Do not use past expiration date printed on product label.

References

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