

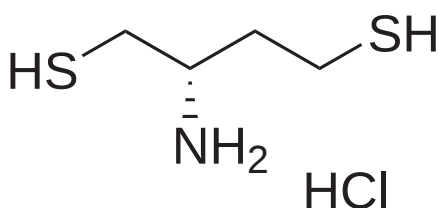
Reduce
Disulfides Faster.



Add **Aldrich**TM

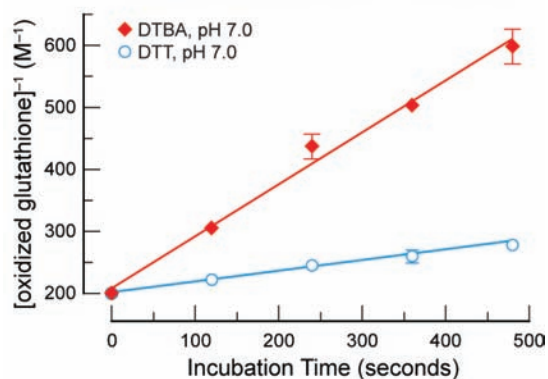
Improved Biological Reducing Reagent

Dithiobutylamine, (DTBA)

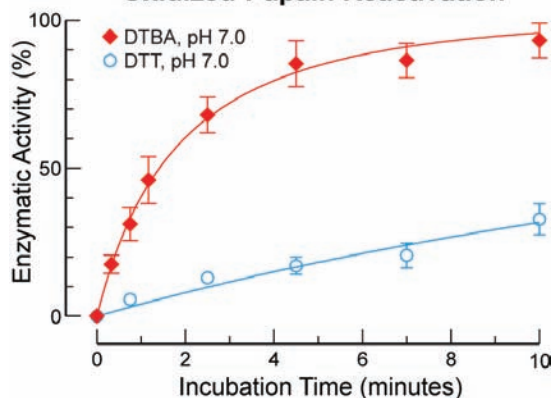


Dithiobutylamine (Product No. 774405) is a new and improved reagent for the reduction of disulfide bonds in biological systems. As seen in the graphs below, DTBA has been shown to reduce the disulfide in oxidized glutathione 5x faster and reduce (activate) the cysteine protease papain 14x faster than commonly used DTT. The presence of the primary amine group in DTBA, as opposed to the two hydroxyl groups of DTT, leads to lower pKa values for the two thiols of the new reagent, attributing to its enhanced biological reducing activity. Another advantage of the primary amine group is that it allows for easy separation of DTBA from your system by cation-exchange methods.

Glutathione-Disulfide Reduction



Oxidized-Papain Reactivation



For more information and to
purchase this product, visit
Aldrich.com/dtba

©2013 Sigma-Aldrich Co. LLC. All rights reserved. SAFC, SIGMA-ALDRICH, and ALDRICH are trademarks of Sigma-Aldrich Co. LLC, registered in the US and other countries. Add Aldrich is a trademark of Sigma-Aldrich Co. LLC. Aldrich brand products are sold through Sigma-Aldrich, Inc. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see product information on the Sigma-Aldrich website at www.sigmaaldrich.com and/or on the reverse side of the invoice or packing slip.

Reference

Lukesh, J.C. III; Palte, M.J.; Raines, R.T., *J. Am. Chem. Soc.* **2012**, 134(9), 4057.