

Additional Reduction and Alkylation Reagents

Product Code	Product Name	Application	References
A 4034	(+)-Sodium L-ascorbate (ascorbic acid)	for preparation of plant extracts; used as reductant for the isolation of chloroplasts	1. Gegenheimer, P., <i>Methods Enzymol.</i> , 182 , 174-193 (1990).
D 8161	1,4-Dithioerythritol no protease detected (DTE)	reducing reagent; used for extracting membrane proteins and in preparing organelles due to its charge it may migrate out of IEF gels, affecting protein solubility	1. Pasquali, C., et al., <i>Electrophoresis</i> , 18 , 2573-2581 (1997). 2. Fialka, I., et al., <i>Electrophoresis</i> , 18 , 2582-2590 (1997).
D 9779	DL-Dithiothreitol no protease detected (DTT)	reducing agent; due to its charge it may migrate out of IEF gels, affecting protein solubility	1. Proteome Research: New Frontiers in Functional Genomics, Wilkins, M.R., Williams, K.L., Appel, R.D., Hochstrasser, D.F. (eds.) (Springer, 1997). 2. Jazwinski, S.M., <i>Methods Enzymol.</i> , 182 , 154-174 (1990). 3. 2-D Proteome Analysis Protocols, Vol. 112 , <i>Methods in Molecular Biology</i> , Link, A.J. (ed.). (Humana Press, Totowa, NJ, 1999).
M 3148	2-Mercaptoethanol no protease detected (BME or 2-ME)	reducing agent; used at 10-140 mM for enhancing enzymatic lysis of yeast	1. Jazwinski, S.M., <i>Methods Enzymol.</i> , 182 , 154-174 (1990).
T 7567	Tributylphosphine solution, 200 mM (0.5 ml per vial)	non-charged reducing reagent, keeps proteins soluble during electrophoresis	1. Herbert, B.R., <i>Electrophoresis</i> , 19 , 845-851 (1998). 2. Molloy, M.P., et al., 19 , 837-844 (1998). 3. Molloy, M.P., et al., <i>Eur. J. Biochem.</i> , 267 , 2871-2881 (2000).
C 4706	Tris (2-carboxyethyl) phosphine HCl (TCEP)	water soluble reducing reagent; more stable than DTT and useful for mass spectrometry	1. Getz, et al., <i>Anal Biochem.</i> , 273 , 73-80 (1999). 2. Fischer, W.H., et al., <i>Rapid Commun. Mass Spectrom.</i> , 7 , 225-228 (1993).
A 3221	Iodoacetamide (56 mg per vial)	for alkylation of protein samples	1. Herbert, B.R., <i>Electrophoresis</i> , 19 , 845-851 (1998). 2. Moloy, M.P., et al., <i>Electrophoresis</i> , 19 , 837-844 (1998). 3. Molloy, M.P., et al., <i>Eur. J. Biochem.</i> , 267 , 2871-2881 (2000).