

Primary analytical method for determination of serum total protein in reference materials

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Chromý et al. published in 2009, that albumin-calibrated analysis of serum total protein according to a candidate reference method developed by Dumas working group in 1981 provide results with unacceptable positive bias. The simplest way to change this defect is the use of serum and/or plasma-based protein standards certified by the Kjeldahl method. In the first study Kjeldahl methods adopted by laboratory medicine were reviewed. Direct analysis on washed protein precipitates with trichloroacetic acid was selected and verified its analytical performance parameters. During these procedures we noticed that some proteins in reconstituted freeze-dried materials are not quite stable and changes visibly, (mostly goes down), even during the time allowed for their use. Total protein changes found in various reference materials are described in second study.