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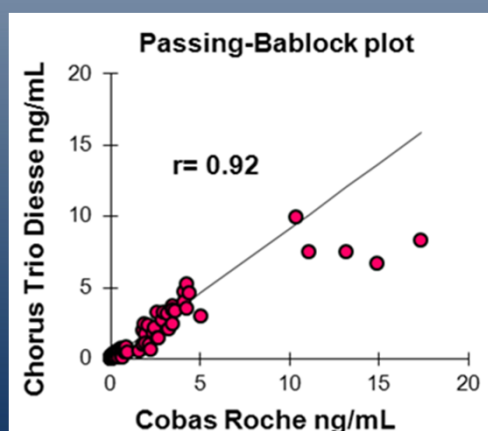
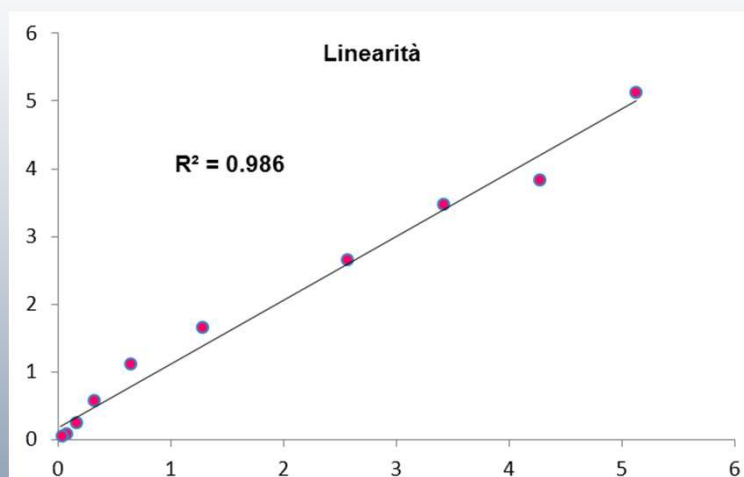
COMPARISON BETWEEN TWO METHODS FOR THYROGLOBULIN: COBAS-ROCHE vs CHORUS TRIO DIESSE

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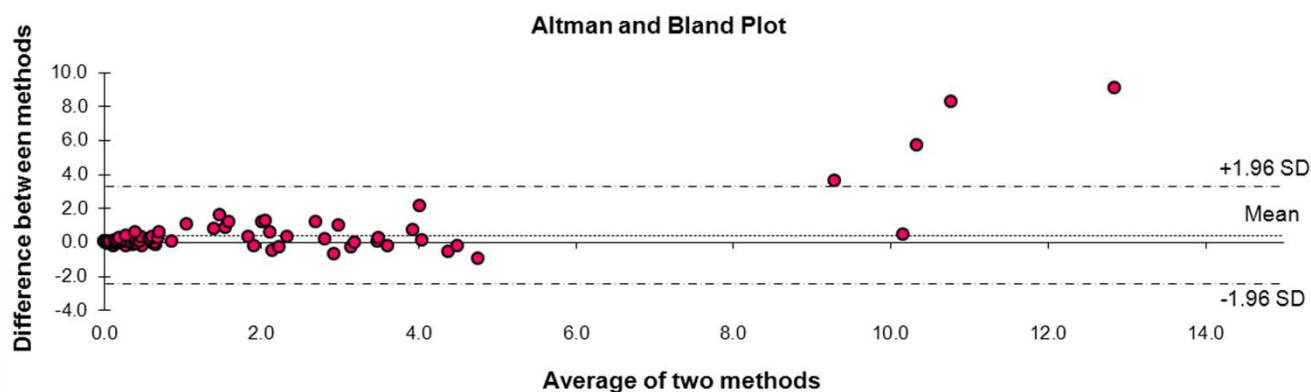
Introduction: Thyroglobulin (Tg) is a secretory protein synthesized in the thyrocyte endoplasmic reticulum (ER), where it acquires N-linked glycosylation and conformational maturation (including formation of many disulfide bonds), leading to homodimerization. Its primary functions include iodide storage and thyroid hormonogenesis. Tg consists largely of repeating domains, and many tyrosyl residues in these domains become iodinated to form monoiodo- and diiodotyrosine, whereas only a small portion of Tg structure is dedicated to hormone formation. Production of Tg is stimulated by TSH, intrathyroidal iodine deficiency and the presence of thyroid-stimulating immunoglobulins. Serum Tg measurement has greatly facilitated the clinical management of patients with differentiated thyroid cancer, in the post-operative follow-up and a variety of other thyroid disorders. The purpose of this study is to evaluate the immunoenzymatic method using Chorus Trio Diesse through comparison with Cobas Roche.

Material and Methods: Ninety-eight serum samples recovered from the daily clinical routine were tested for Tg on Cobas-Roche and then on Chorus Trio Diesse. The Cobas-Roche's technology is based on chemiluminescence immunoassay detection, while that of Chorus Trio Diesse on an immunoenzymatic method. The results obtained were examined by statistical analyzes Bland-Altman and Passing-Bablok performed with SPSS version 11.0.

Results: Linearity trials on Chorus Trio Diesse performed on 10 replicates with serial dilution showed a $y = 0.9844x - 0.1495$ $r^2 = 0.9863$. LOQ was 0.1 ng/ml. By comparison of the Chorus Trio Diesse method with that of Cobas-Roche, the results at the Passing-Bablok analysis showed $r=0.92$; Intercept = -0.0078 (95% CI= -0.0332 to 0.0196), while at the Bland and Altman analysis the mean differences was 0.431 (+1.96 SD= 3.269 and -1.96 SD= -2.408).



	Coefficient	95% CI of Coefficient	
Intercept	-0.0078	-0.0332	to 0.0196
Slope	0.9130	0.7935	to 0.9830



	Estimate	95% CI	
Lower Limit	-2.408	-2.9133	to -1.9022
Bias	0.431	0.1389	to 0.7227
Upper Limit	3.269	2.7638	to 3.7750

Conclusions: Chorus Trio Diesse has a good analytical performance. The measurements obtained by Chorus Trio Diesse are comparable and similar to those of Cobas-Roche, especially for concentrations ranged between 0.5 and 1 ng/ml, this result represent a good analytic target for automated immunoenzymatic method.