

## Workflow Comparison of the Immunochemistry Analysers Snibe Maglumi X8 and Roche Cobas Pro e 801

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Multiple analysers are available for use in central processing laboratories that measure similar panels of tests. We conducted a throughput and performance stress test to compare operational performance, usability and efficiency of two analysers, the Snibe Maglumi X8 [1] and Roche Cobas® Pro e 801 [2] in a routine laboratory setting. This prospective, observational study used anonymised left-over serum samples from individuals undergoing health checks. For each analyser, a batch of 100 samples was created, barcoded and analysed to measure a panel of six assays (triiodothyronine [T3], thyroxine [T4], thyroid-stimulating hormone [TSH], carcinoembryonic antigen [CEA], Vitamin B12 and Vitamin D total), to mirror different assay protocols and indications. Test runs were completed on three different days, using the same serum sample for all six tests; tests commenced at the same time each day and all analyses were conducted by the same researcher. The metrics recorded for each test run included the time taken: from registration to first test pipetting, to pipette 100 samples, and to the first and last result. Initial pipetting times were quicker with Maglumi X8, while processing of samples and analysis times were quicker with Cobas Pro e 801 (see table; further results to be reported in the poster).

	Day 1		Day 2		Day 3	
	Maglumi X8	Cobas Pro e 801	Maglumi X8	Cobas Pro e 801	Maglumi X8	Cobas Pro e 801
<b>Time to pipette first test (post registration)</b>	<b>30s</b>	2m 18s	<b>30s</b>	3m 18s	<b>30s</b>	3m 18s
<b>Time to pipette first sample (all six tests)</b>	<b>15s</b>	48s	<b>15s</b>	48s	<b>15s</b>	48s
<b>Time to provide first sample result</b>	37m 14s	<b>27m 45s</b>	37m 14s	<b>27m 45s</b>	37m 14s	<b>27m 45s</b>
<b>Time to pipette 100 samples</b>	3h 38m	<b>2h 13m</b>	3h 33m	<b>2h 10m</b>	2h 42m*	<b>2h 10m</b>
<b>Time to provide last sample result</b>	4h 15m	<b>2h 30m</b>	4h 5m	<b>2h 28m</b>	3h 19m	<b>2h 28m</b>

h, hours, m, minutes; s, seconds. \*Based on 58 samples due to analyser breakdown

[1] Snibe Co., Ltd. (2021). MAGLUMI® X8 Fully Automatic Chemiluminescence Immunoassay System Technical Specification. <https://mse-group.co/assets/images/MAGLUMI-X8-M1012E01-210202.pdf> (accessed 16 Jan 2026).

[2] Roche Diagnostics International Ltd. cobas® pro integrated solutions – Product Brochure. 2023. <https://diagnostics.roche.com/content/dam/diagnostics/Blueprint/en/pdf/cps/cobas-pro/MC--05530-External-cobas%20pro%20integrated%20solutions%20-%20Product%20Brochure.pdf> (accessed 16 Jan 2026).