Supplemental Data Table S1. Reference values for testosterone in several institutes measured based on LC-MS/MS

(A) ARUP

https://ltd.aruplab.com/Tests/Pub/2004246 and https://ltd.aruplab.com/Tests/Pub/0081058

(B) Mayo Clinic Laboratories

http://www.mayocliniclabs.com/test-catalog/Clinical+and+Interpretive/8533

(C) Quest Diagnostics

https://testdirectory.questdiagnostics.com/test/test-detail/15983/testosterone-total-ms?p=r&q=Testosterone,%20Total,%20MS&cc=MASTER

(D) Abbott Architect

(ng/mL)	Men	Women
21–49 yr	2.40–8.71	0.14–0.53
≥50 yr	2.21–7.16	0.12–0.36

(E) Roche Elecsys

(ng/mL)	Men		Women	
	Median	5th–95th quantile	Median	5th–95th quantile
20–49 yr	5.360	2.490–8.360	0.271	0.084–0.481
≥50 yr	4.760	1.930–7.400	0.162	0.029–0.408

Abbreviation: LC-MS/MS, liquid chromatography-tandem mass spectrometry.

Supplemental Data Table S2. Method comparison of LC-MS/MS and the CMIA at low testosterone concentrations

Group	Age mean ± SD (yr)	Passing–Bablok regression analysis		*r*
		Slope	Intercept	
Men (N = 40)	74.3 ± 12.7	1.868 (1.429–2.400)*	–0.0189 (–0.0616 to 0.0114)	0.7432
Women (N = 40)	34.1 ± 9.6	0.885 (0.721–1.154)	0.0346 (–0.0238 to 0.0764)	0.7868
Boys (N = 40)	10.5 ± 1.4	1.856 (1.212–3.000)	–0.0444 (–0.1270 to 0.0027)	0.5406
Girls (N = 40)	11.6 ± 3.2	0.844 (0.732–1.000)	0.0342 (0.0205–0.0410)	0.9285

*Numbers in parentheses are 95% confidence intervals of Passing–Bablok regression analysis.
Abbreviations: LC-MS/MS, liquid chromatography-tandem mass spectrometry; CMIA, chemiluminescent microparticle immunoassay.

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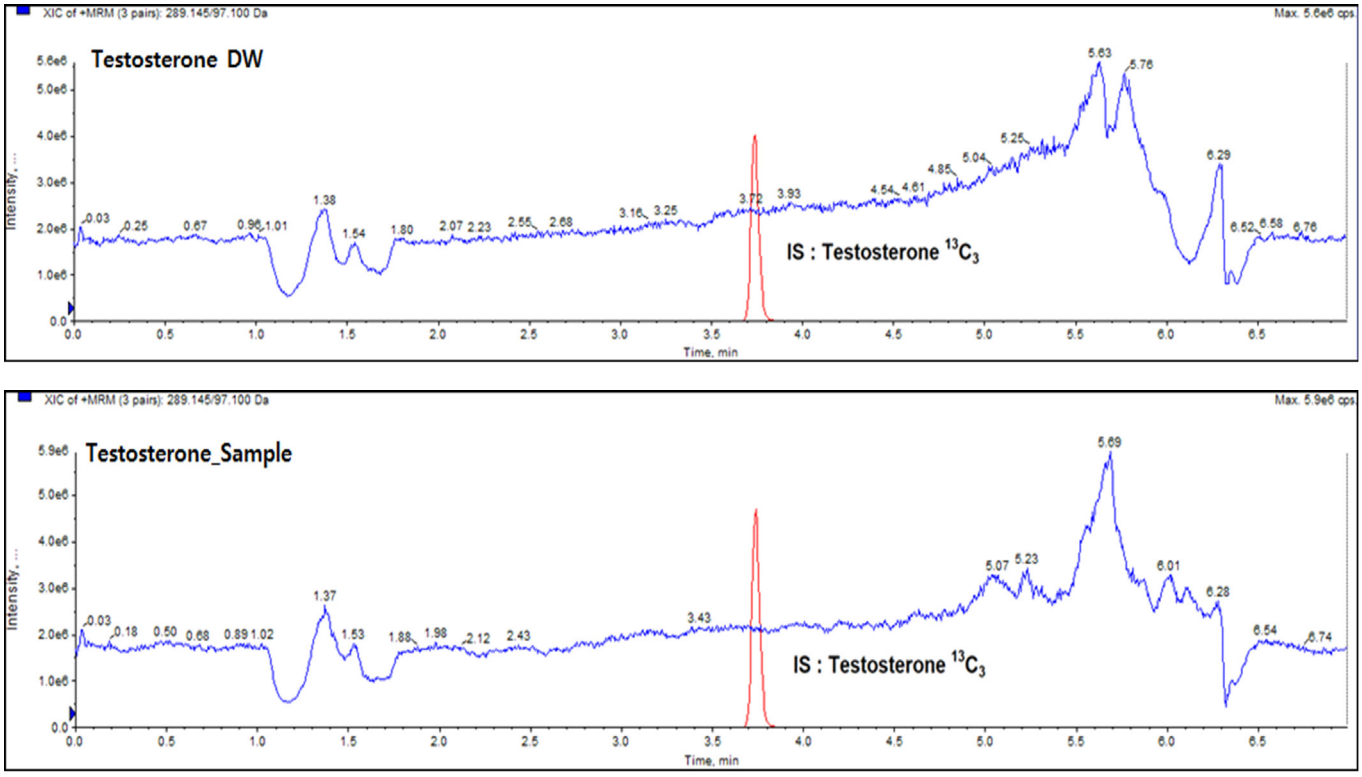

Supplemental Data Fig. S1. Ion suppression analysis. No significant ion suppression or enhancement at the corresponding retention time was observed in tandem mass spectrometry analysis.