

Supplementary Information

Sensitive, Fast, and Specific Immunoassays for Methyltestosterone Detection. *Sensors* 2015, 15, 10059-10073

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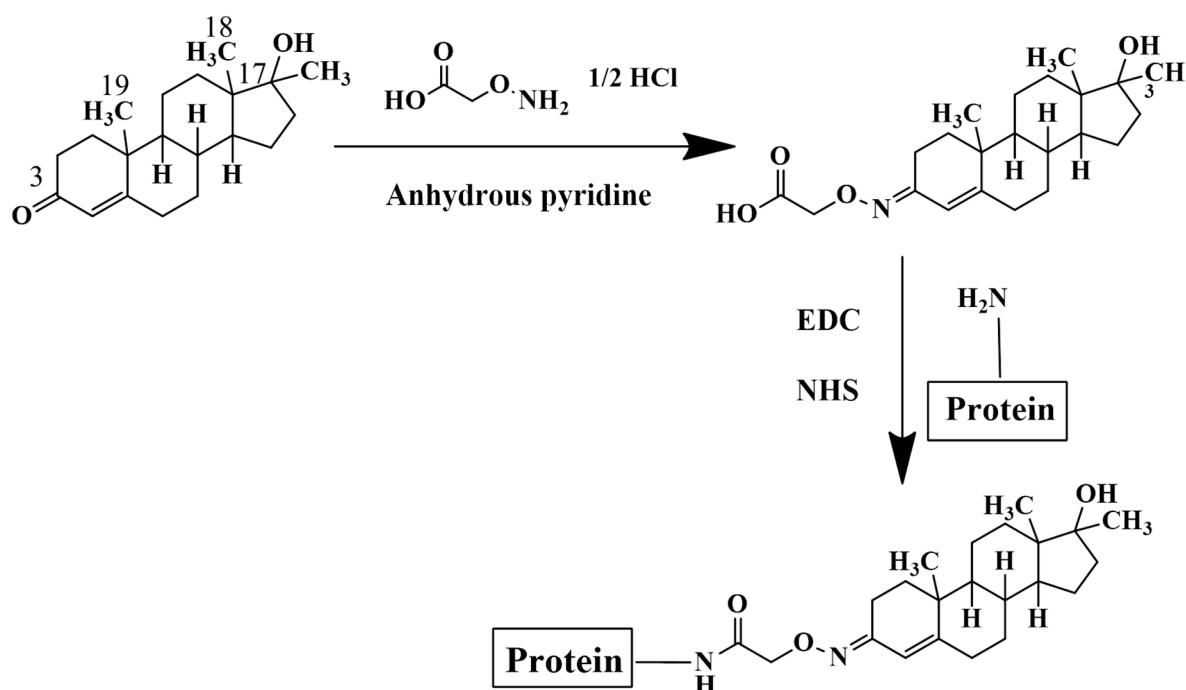


Figure S1. The synthesis routes to MT-CMO and MT artificial antigen by the EDC method. The labels 3, 17, 18 and 19 correspond to the carbon bond positions mentioned in the article.

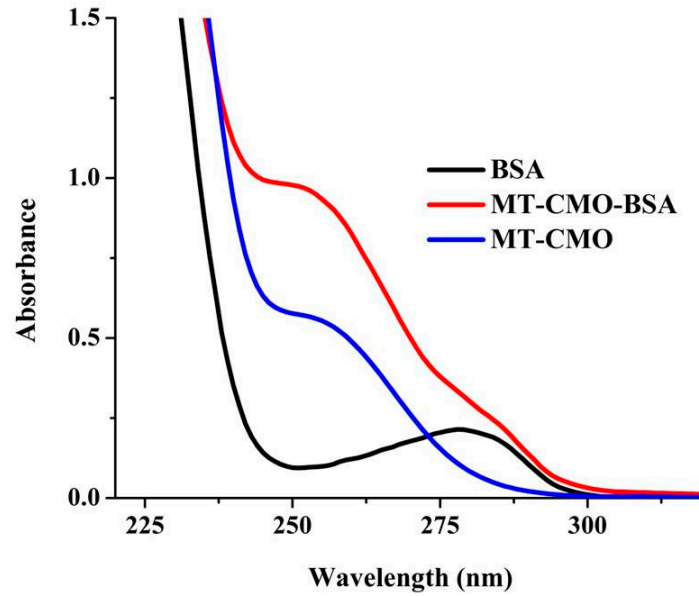


Figure S2. UV-Vis spectra of the immunogen for MT.

Table S1. Effect factors of the optimized icELISA.

Factor	A_{\max}	IC_{50}	A_{\max}/IC_{50}
Methanol Content (%)			
0	1.478 ± 0.015	0.418 ± 0.02	3.536 ± 0.032
5	1.577 ± 0.026	0.567 ± 0.023	2.783 ± 0.009
10	1.704 ± 0.011	0.418 ± 0.05	4.077 ± 0.05
20	1.873 ± 0.049	0.626 ± 0.009	2.992 ± 0.004
Ionic strength ^a (mM)			
5	1.632 ± 0.034	0.68 ± 0.017	2.400 ± 0.05
10	1.578 ± 0.023	0.398 ± 0.024	3.965 ± 0.013
20	1.164 ± 0.022	0.565 ± 0.024	2.060 ± 0.07
40	0.895 ± 0.036	0.504 ± 0.092	1.776 ± 0.043
pH			
4.7	0.850 ± 0.002	0.456 ± 0.005	1.864 ± 0.003
6.0	1.741 ± 0.005	0.723 ± 0.038	2.408 ± 0.134
7.4	1.428 ± 0.025	0.455 ± 0.029	3.138 ± 0.063
8.6	1.686 ± 0.051	0.577 ± 0.026	2.922 ± 0.023
9.6	1.490 ± 0.045	0.714 ± 0.007	2.087 ± 0.045

^a the concentration of PBS.

Table S2. Comparison of LOD and CR for MT detection based on ELISA.

CR (%)	LOD (ng/mL)	Ref.
No mention	0.141	42
<78	0.266	43
non-specificity	200	44
<2.17	0.045	This work

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