

Supporting information

Cobalt-metal-organic frameworks nanoflower as oxidase-like nanozyme and 1,2-diaminobenzene as catalytical substrate for innovatively signal “off-on” aptamer sensing of prostate-specific antigen

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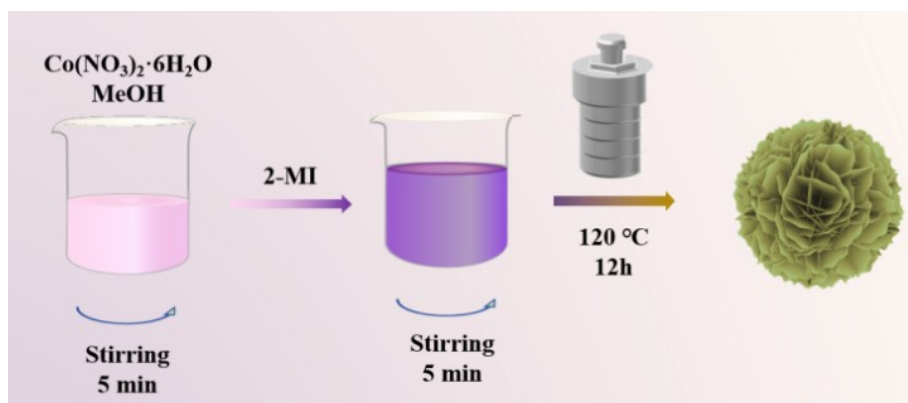
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Scheme S1. Schematic illustration for the preparation of Co-MOF nanozyme.

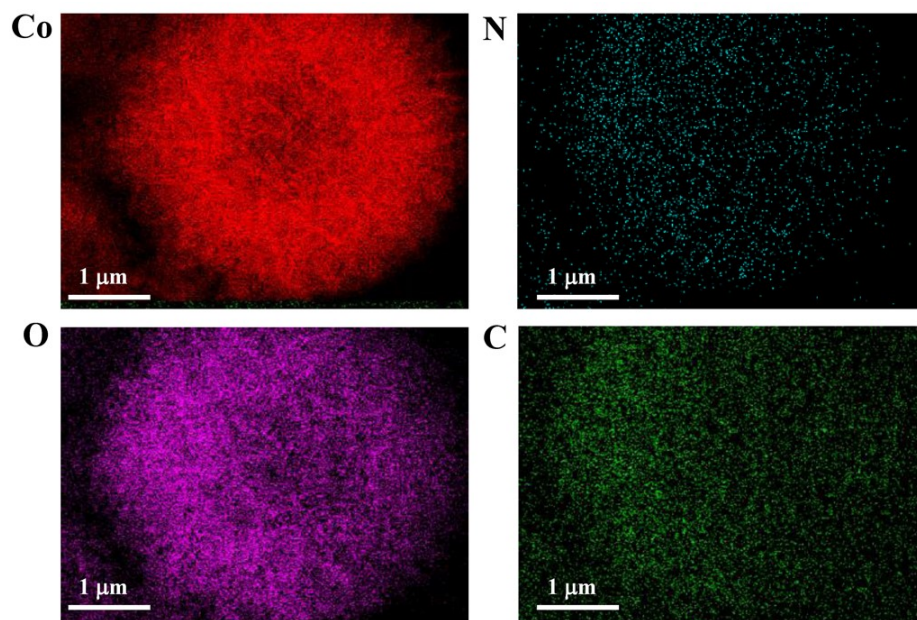


Figure S1. EDS elemental maps of Co-MOFs.

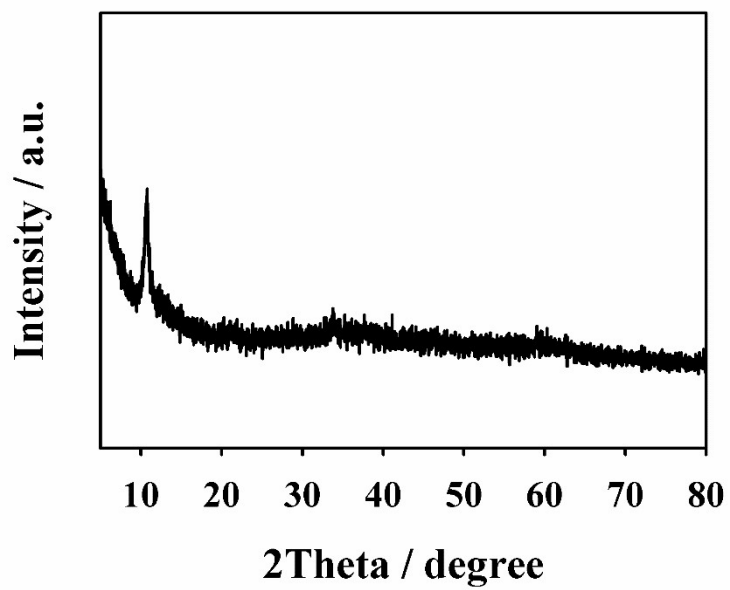


Figure S2. PXRD pattern of Co-MOFs.

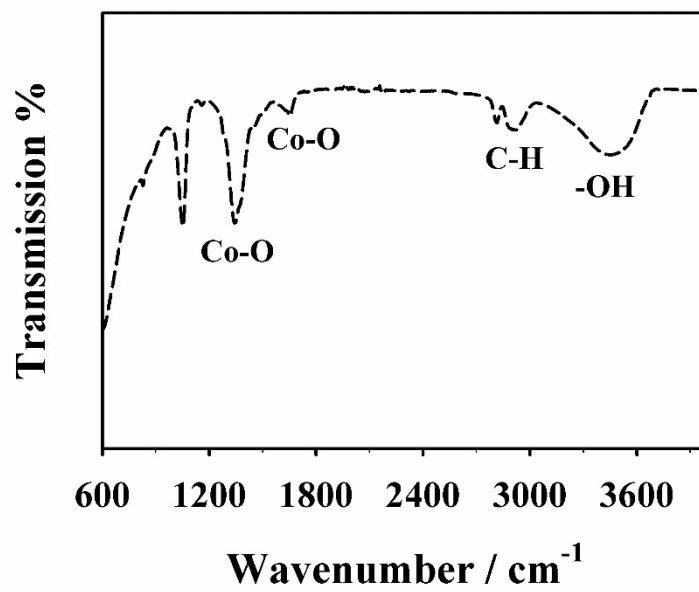


Figure S3. FTIR spectrum of Co-MOFs.

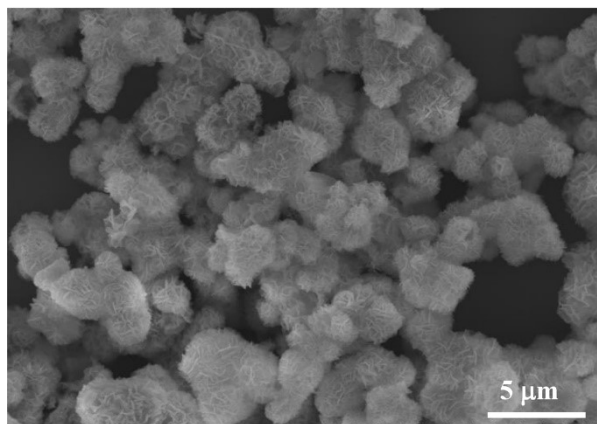


Figure S4. The SEM image of Co-MOFs nano hybrids on the surface of GCE.

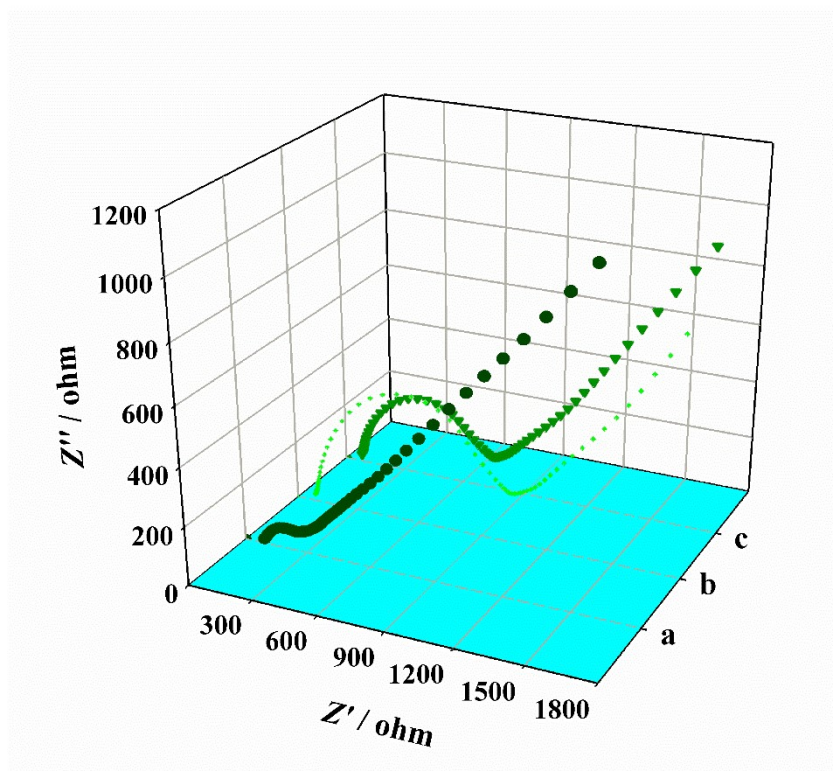


Figure S5 EIS plots of Co-MOFs/GCE (a), Apt/Co-MOFs/GCE before (b) and after (c) incubation with PSA in 0.1 M KCl solution containing 5 mM $[\text{Fe}(\text{CN})_6]^{3-/4-}$.

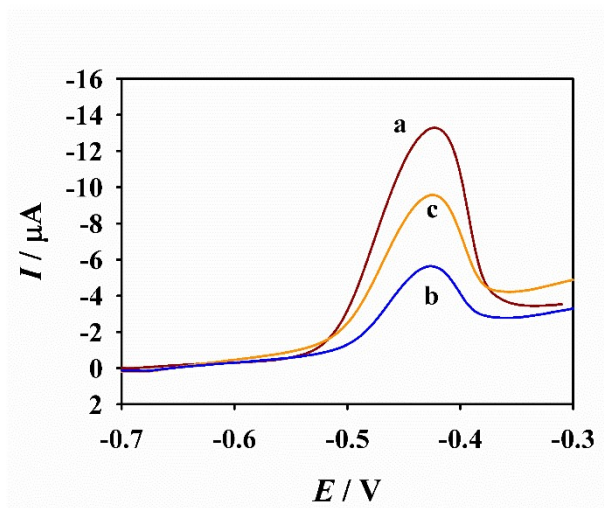


Figure S6. DPV response signals of DAP at Co-MOFs/GCE (a), Apt/Co-MOFs/GCE before (b) and after (c) incubation with CEA.

Table S1. PSA recovery tests in human serum samples.

Sample	Added (pg/mL)	Detected (pg/mL)	Recovery	RSD (%)	ELISA
a	300	286.5	95.5	3.24	292.3
b	500	463.6	92.7	2.85	476.5
c	800	772.4	96.5	2.64	785.6
d	2000	1983.6	99.18	2.57	1990.2