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Supporting Information

Electrochemically Synthesized Molecularly Imprinted Polymer for Highly

Selective Detection of Breast Cancer Biomarker CA 15-3: A Promising Point-of-

Care Biosensor

Table S1 - Spectral features of two-peak of the D and G band

Samples	D band	I _D	G band	I _G	I_D/I_G
Pre-treatment	1356	1496.88	1586	1657.60	0.90
MIP	1355	2259.15	1583	2266.07	1.00
NIP	1357	2940.55	1585	3420.36	0.86
MIP after treatment with proteinase k	1355	3819.17	1583	3703.42	1.03



Figure S1– SWV measurements of the last stabilization in buffer and increasing standard concentrations of CA 15-3 in NIP (A) and MIP (B) prepared in PB buffer pH 5.8. Images C and D show the calibration curve of the normalized current response against the logarithmic concentration of CA 15-3 for NIP and MIP, respectively.

Sensing Approach	Transducer	Response Range U mL ⁻¹	Limit of detection U mL ⁻¹	Reference
Sensor MIP	Electrochemical	0.25-10	0.05	[1]
Sensor MIP	Electrochemical	0.10-100	0.10	[2]
Sensor MIP	Electrochemical	5-50	1.50	[3]
Sensor MIP	Electrochemical	5-35	1.16	[4]
Sensor MIP	Electrochemical	0.001-10	0.000909	This Work

Table S2 – Analytical performance of sensor reported in the literature for the detection of CA 15-3.

References

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[4]. Oliveira, A. E. F, A. C. Pereira, L. F. Ferreira, Talanta, 2023, 252, 1-14.