

1 Article

2 **Phytosynthesis of palladium nanoclusters: An**
3 **efficient nanozyme for ultrasensitive and selective**
4 **detection of reactive oxygen species**

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12 **Table S1.** Elemental compositions of PdNCs obtained with EDX analysis.

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Element	Line Type	k Factor	k Factor type	Absorption Correction	Wt%	Wt% Sigma	Atomic %
Cu	K series	1.233		0.50	28.39	0.33	39.90
Pd	L series	1.809		0.60	71.61	0.33	60.10
Total:					100.00		100.00

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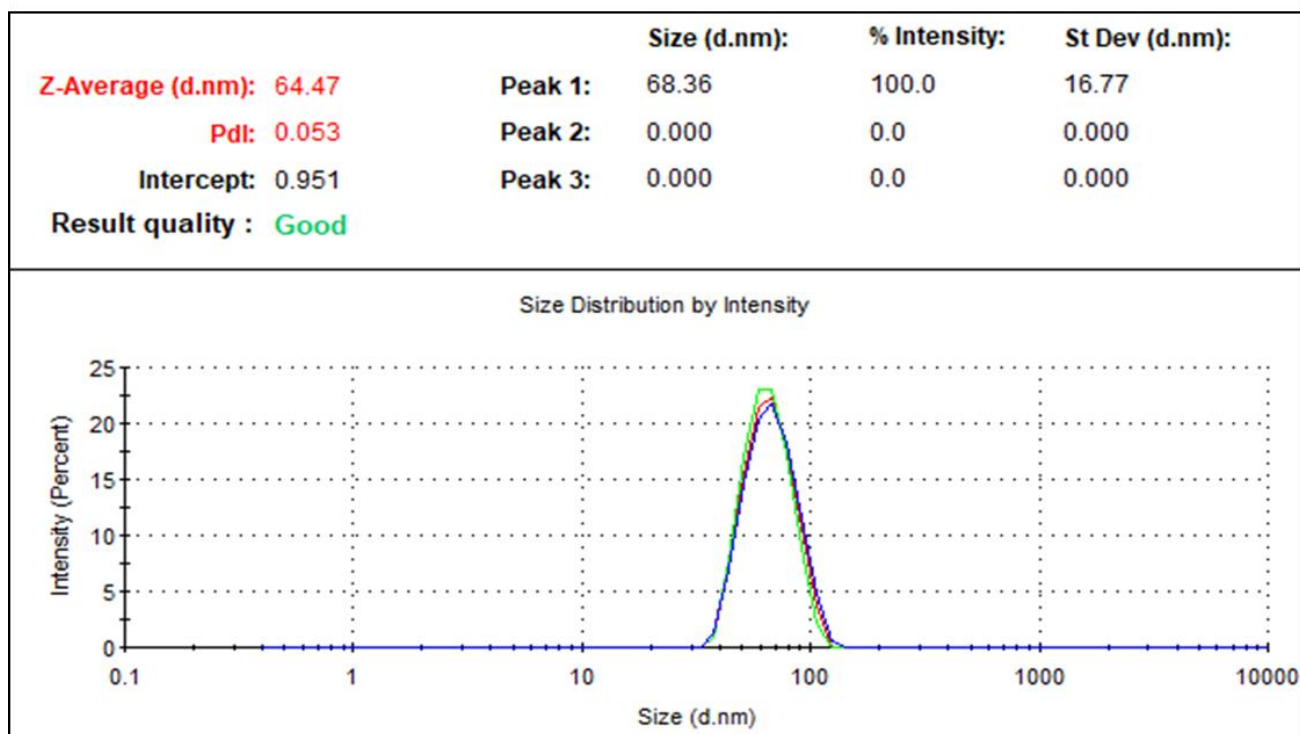
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26 **Figure S1.** Size distribution profile of biosynthesized nanoclusters.

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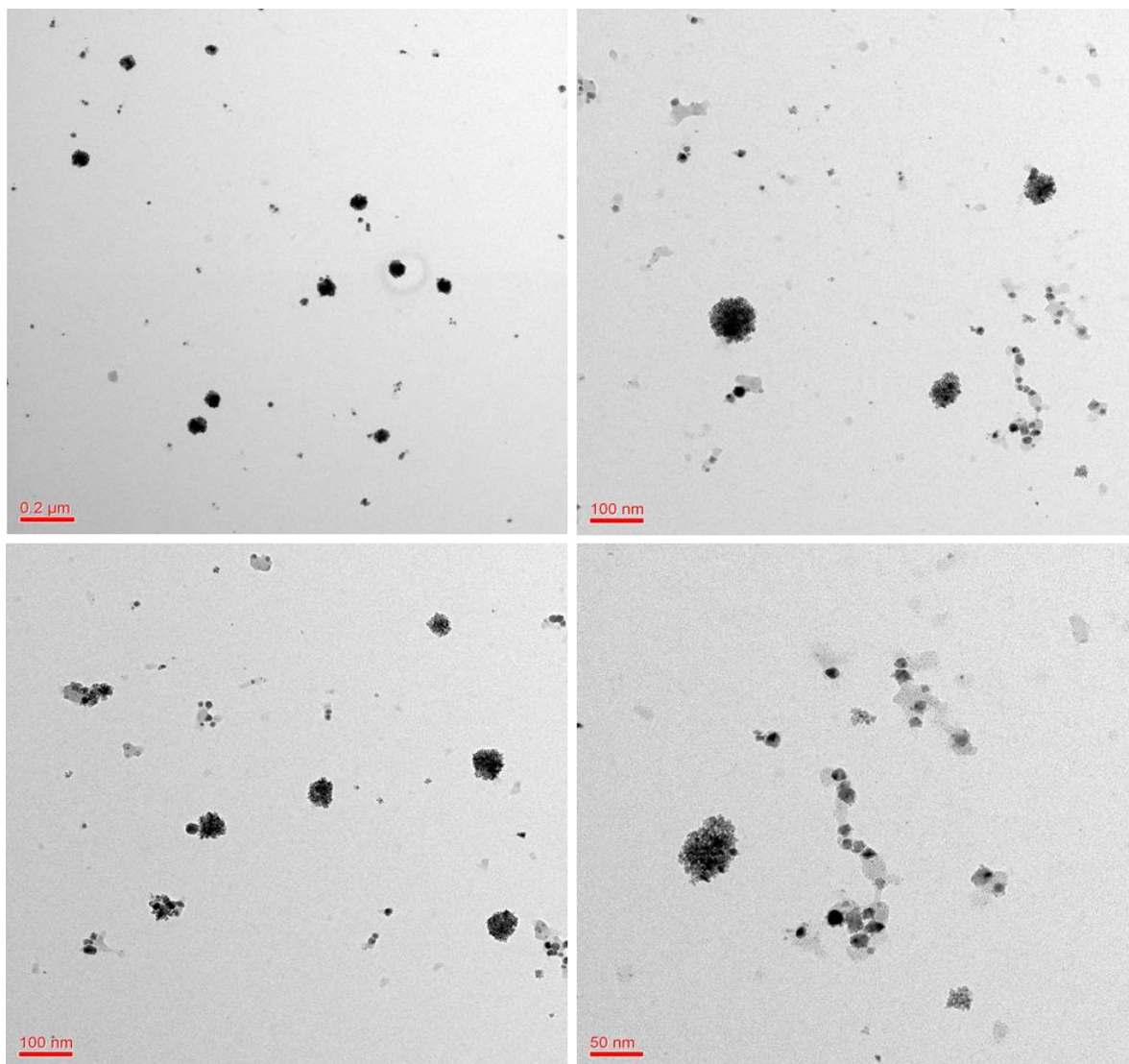
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46 **Figure S2.** Various magnifications of TEM micrographs of PdNCs obtained after sonication of colloidal
47 solution of nanoclusters for assessing their stability.

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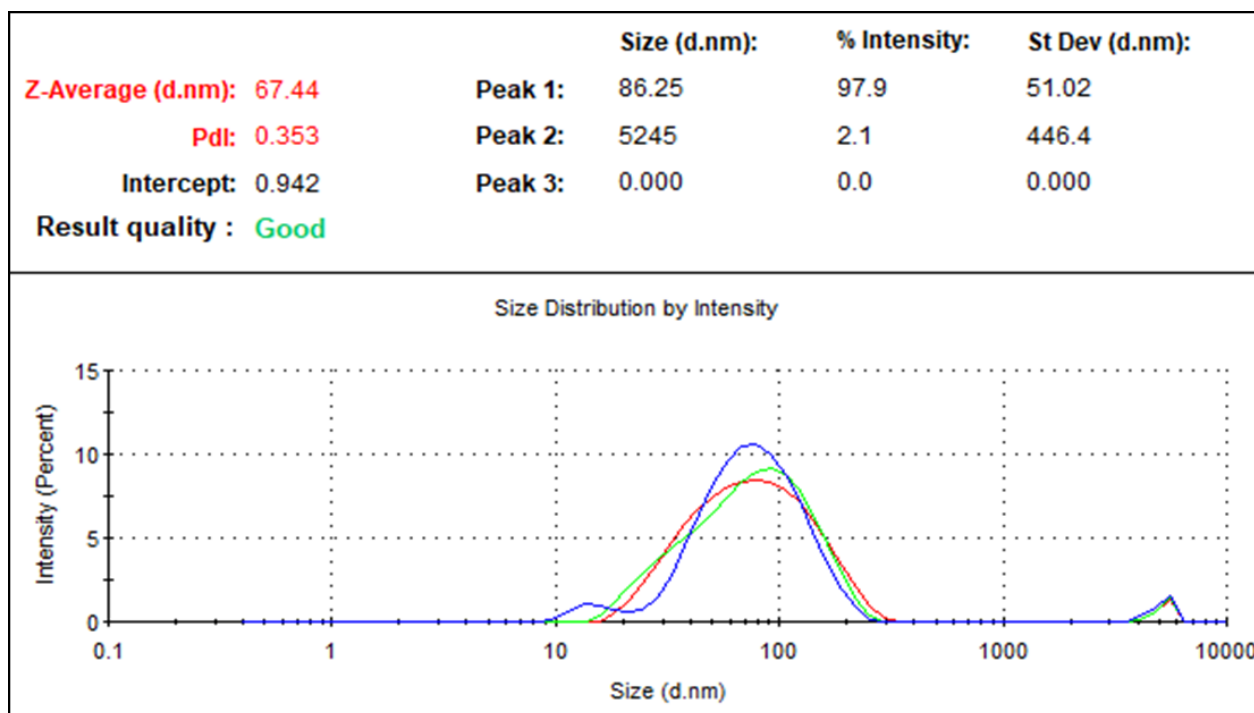
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60 **Figure S3.** DLS obtained after sonication of colloidal solution of nanoclusters for assessing their stability.

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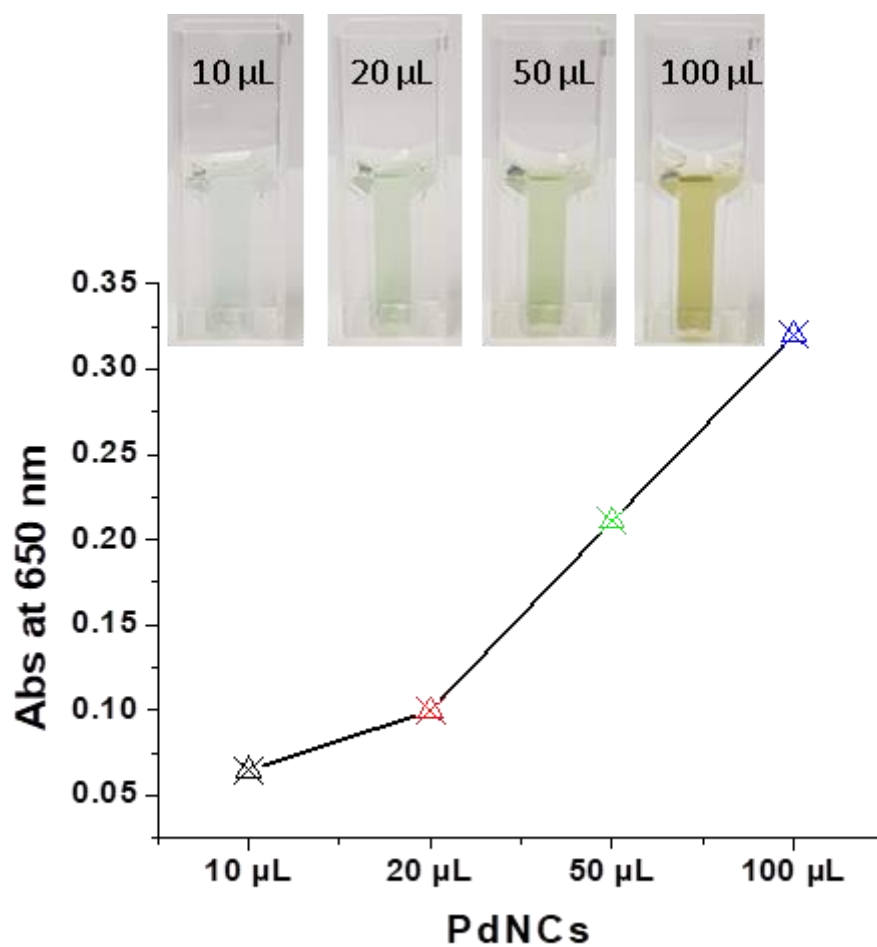
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83 **Figure S4.** Results for the control assay (without H₂O₂) showing absorbance at 650 nm in response to the
84 addition of varying amounts of as-synthesized nanoclusters. Inset cuvettes show impact of nanocluster
85 concentration on intensity of color without H₂O₂.

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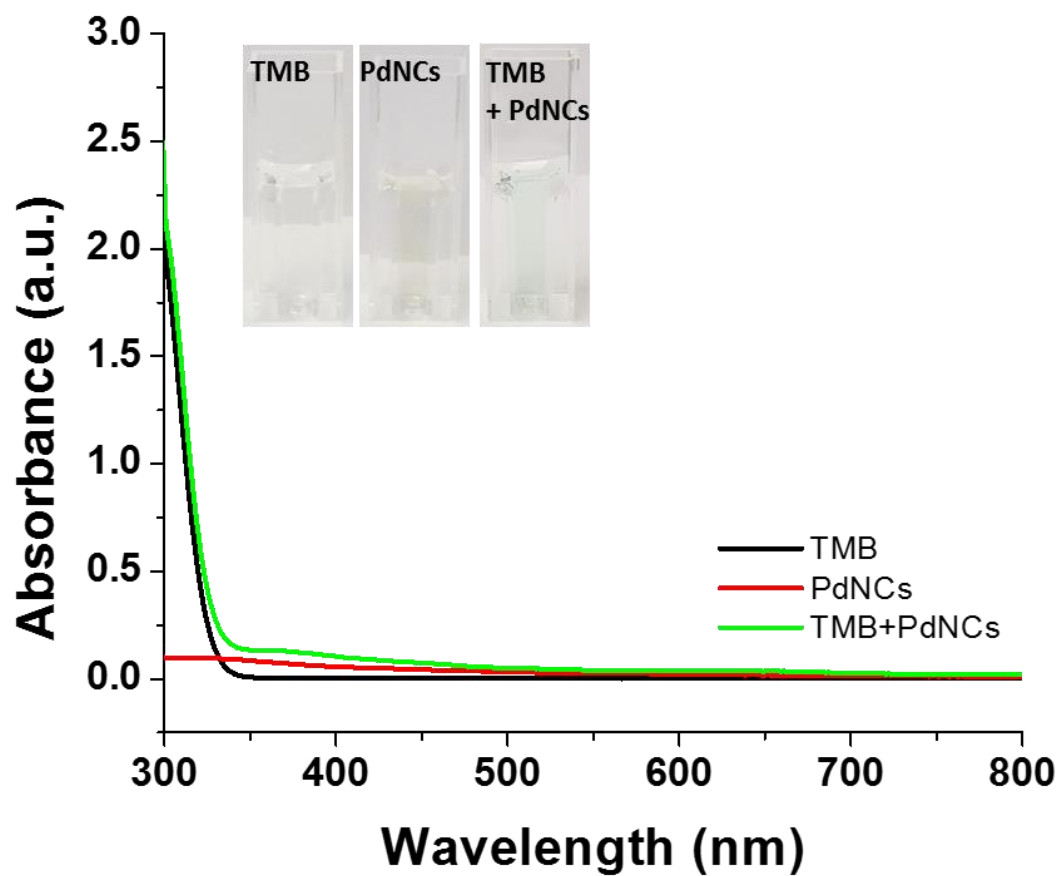
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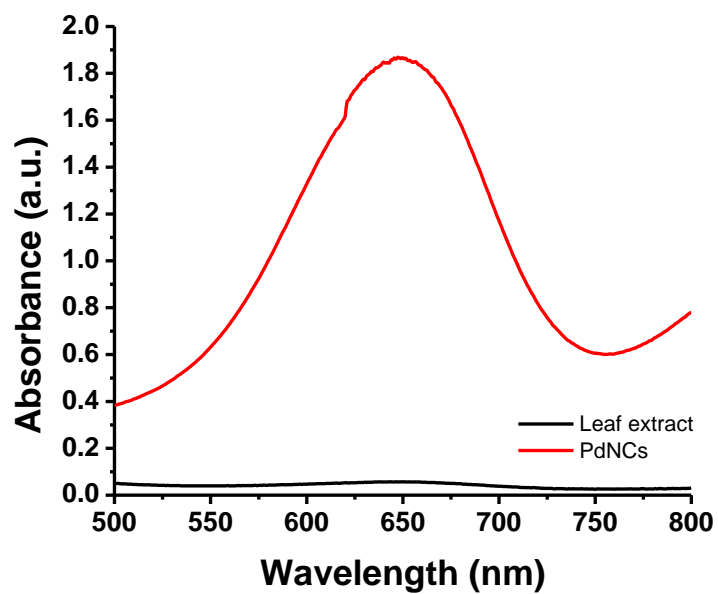


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Figure S5. Absorbance spectra of 0.525 mM TMB, 10 μ L nanoclusters, and the combination of both; the inset cuvettes show the color.

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121 **Figure S6.** Comparative analysis for TMB oxidation between biosynthesized PdNCs and leaf extract.

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