

Supporting Information

**Exploring the inhibitory and antioxidant effects of fullerene and fullerenol
on Ribonuclease A**

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S1. UV-Vis spectra of fullerene and fullerenol

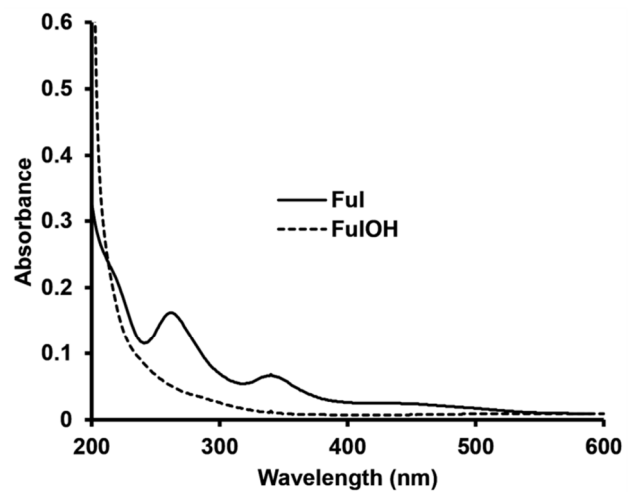


Figure S1. UV- vis spectra of Fullerene (Ful) and Fullerenol (FulOH)

S2. MALDI-TOF

The MALDI-TOF spectrum of fullerene in water

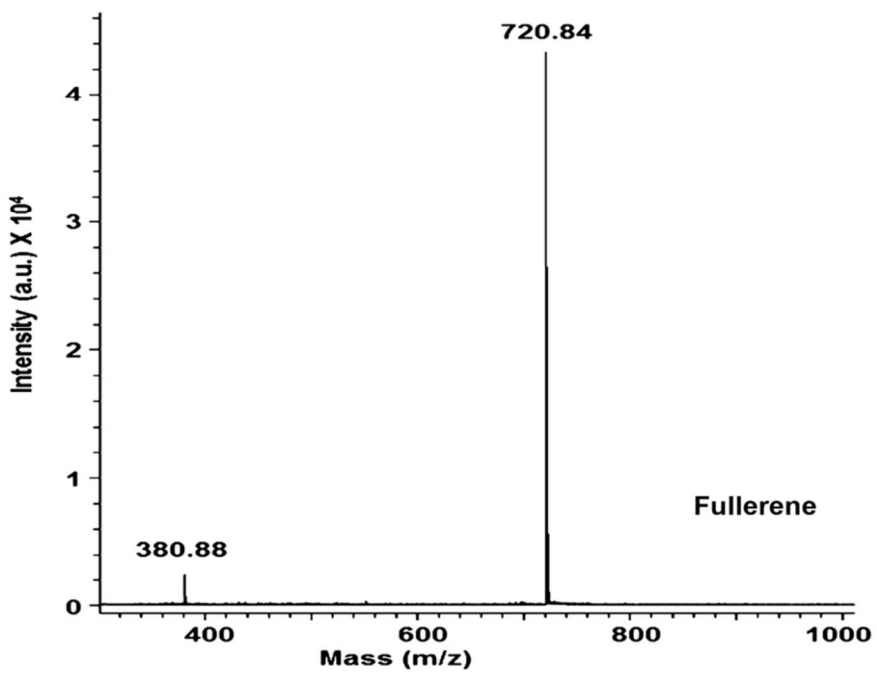


Figure S2 . MALDI TOF spectrum of fullerene in water

S3. Microscopic studies of Fullerene and Fullereneol using Field Emission Scanning Electron Microscopy (FESEM) and Atomic Force Microscopy (AFM):

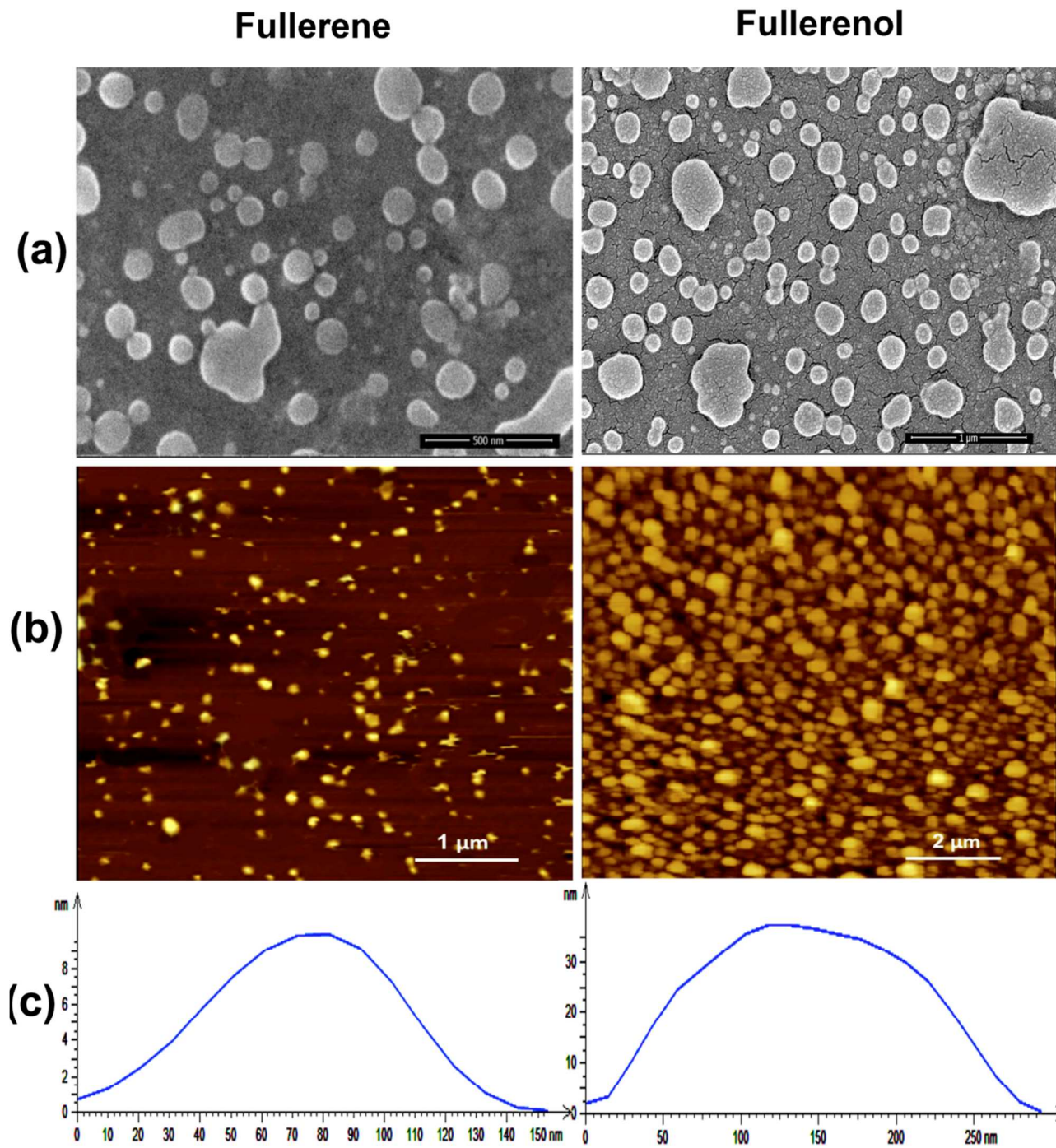


Figure S3. (a) FESEM (b) AFM images (c) particle size of fullerene and fullereneol
Magnification for FESEM images: 114870 X (Fullerene), 50000 X (Fullereneol)

S4: DLS studies of fullerene and fullerol in presence of RNase A

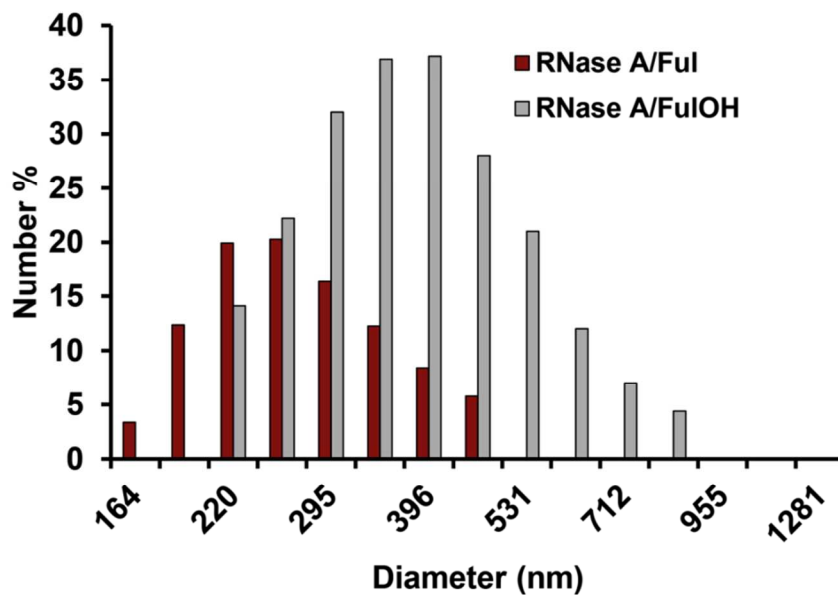


Figure S4. DLS measurements of fullerene (RNase A/Ful) and fullerol (RNase A/FulOH) in presence of RNase A

Sizes of RNase A/Ful and RNase A/FulOH are 275.15 ± 28.5 nm and 369.05 ± 38.2 nm respectively.

S5. Enzyme Activity of DT cross-linked RNase A dimer and monomer

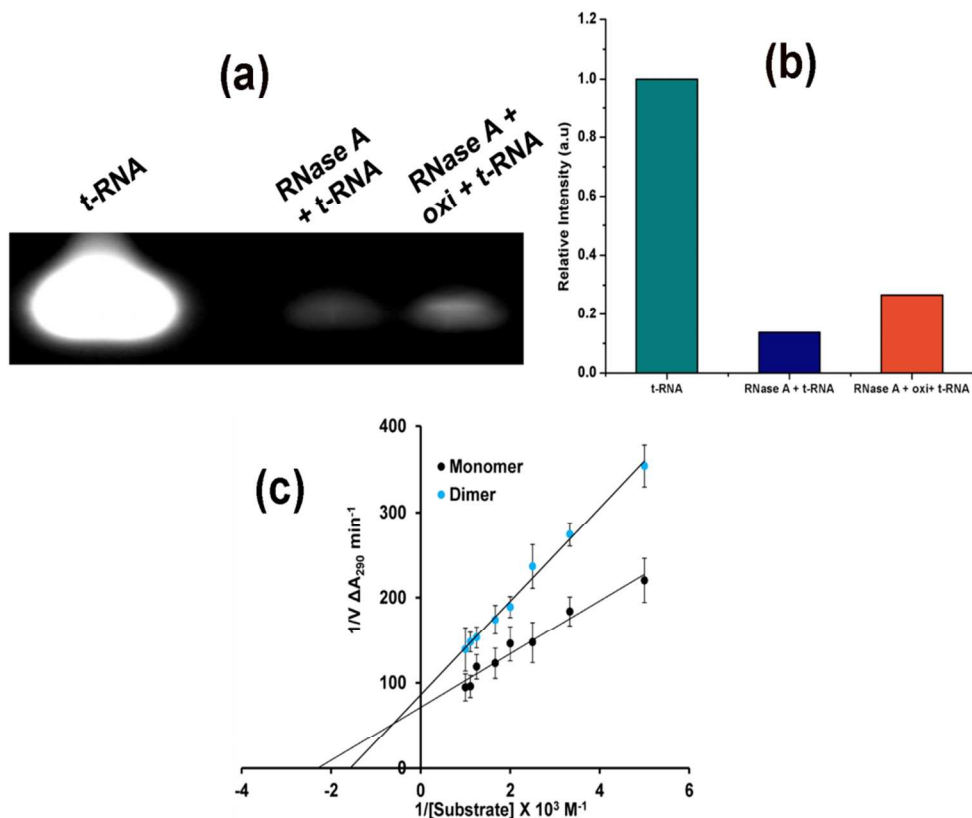


Figure S5. (a) Agarose gel of monomer (RNase A) and dimer (RNase A + oxi, oxi= $K_2S_2O_8 + Co^{2+}$) (b) Relative intensities of the agarose gel (c) Lineweaver-Burk plot for monomer and dimer

Table S1 The V_{max} , K_M and k_{cat} vales for RNase A monomer and DT crosslinked dimer calculated from Lineweaver–Burk plot.

	Monomer	Dimer
V_{max} (M min ⁻¹)	13.83×10^{-6}	11.61×10^{-6}
K_m (M)	434.87×10^{-6}	635.65×10^{-6}
K_{cat}	6.915	5.805