

Supplementary materials

Antioxidant Activity, Stability in Aqueous Medium and Molecular Docking/Dynamics Study of 6-Amino- and *N*-Methyl-6-amino-L-ascorbic Acid

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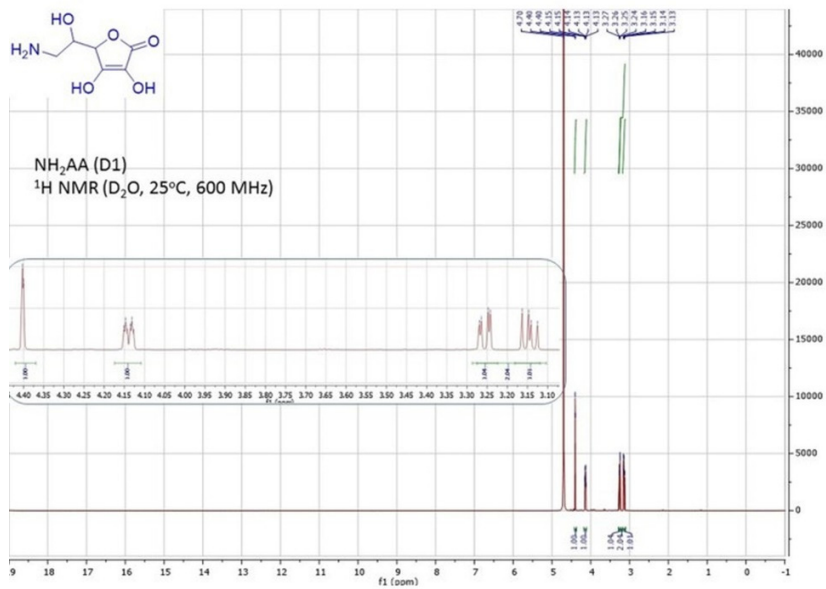
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(A)



(B)

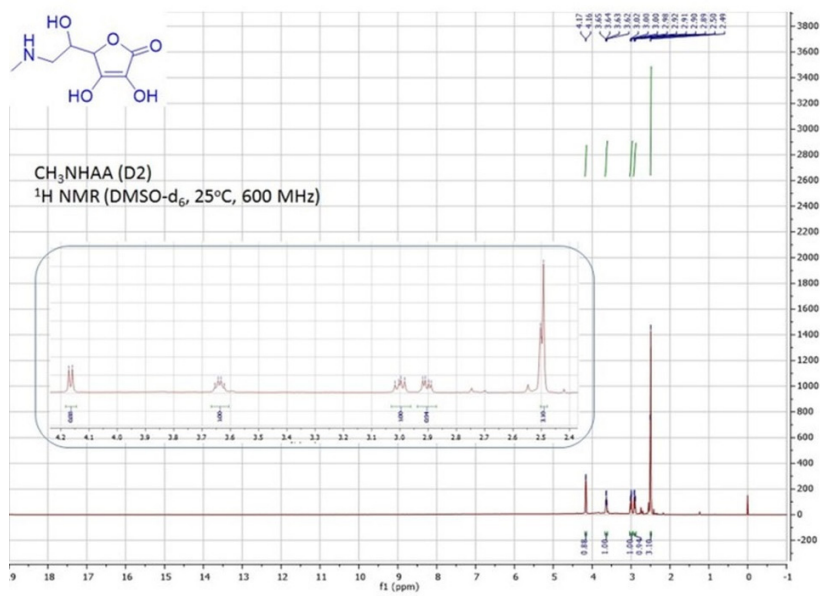


Figure S1. NMR spectrum of NH₂AA (D1) (**A**) and CH₃NHAA (D2) (**B**).

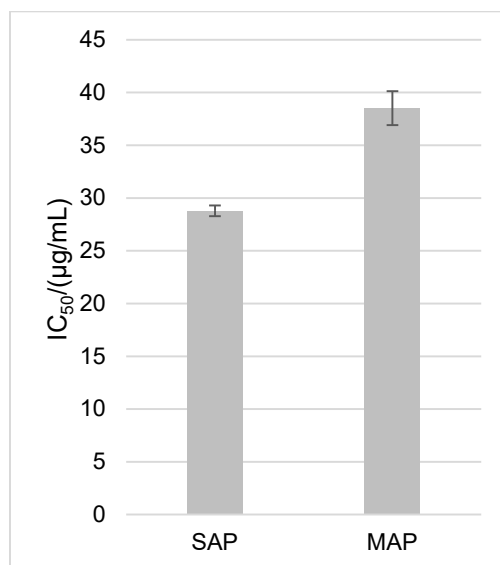


Figure S2. ABTS antioxidant activity of sodium ascorbyl phosphate (SAP) and magnesium ascorbyl phosphate (MAP) at day 0. Results are presented in $\mu\text{g/mL} \pm$ standard deviation.

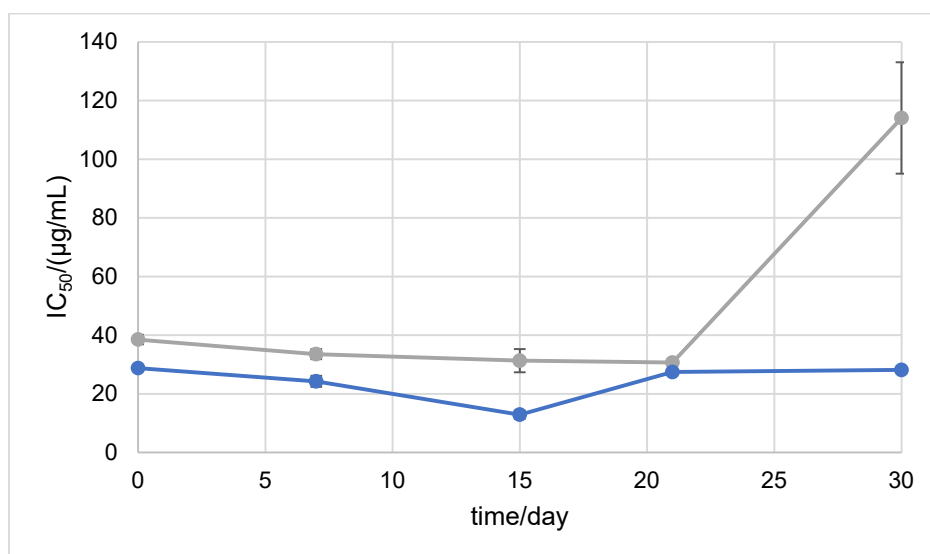


Figure S3. ABTS antioxidant stability of sodium ascorbyl phosphate (SAP) and magnesium ascorbyl phosphate (MAP) analysed after 0,7,15,21 and 30 days of incubation at 20 °C in the dark. Results are presented in $\mu\text{g/mL} \pm$ standard deviation. SAP derivative is shown in blue and MAP derivative in gray.

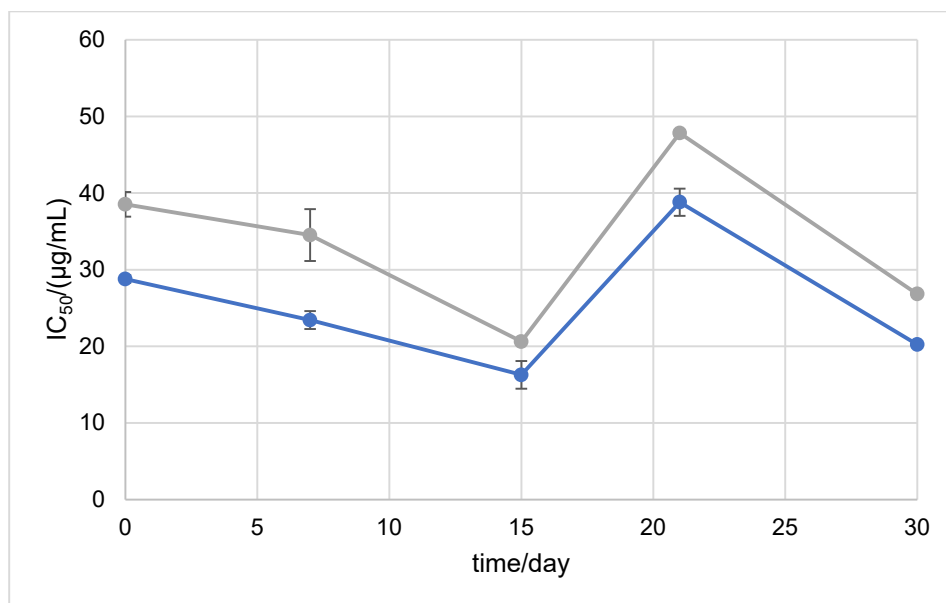


Figure S4. ABTS antioxidant stability of sodium ascorbyl phosphate (SAP) and magnesium ascorbyl phosphate (MAP) analysed after 0,7,15,21 and 30 days of incubation at 4 °C in the dark. Results are presented in $\mu\text{g/mL} \pm$ standard deviation. SAP derivative is shown in blue and MAP derivative in gray.

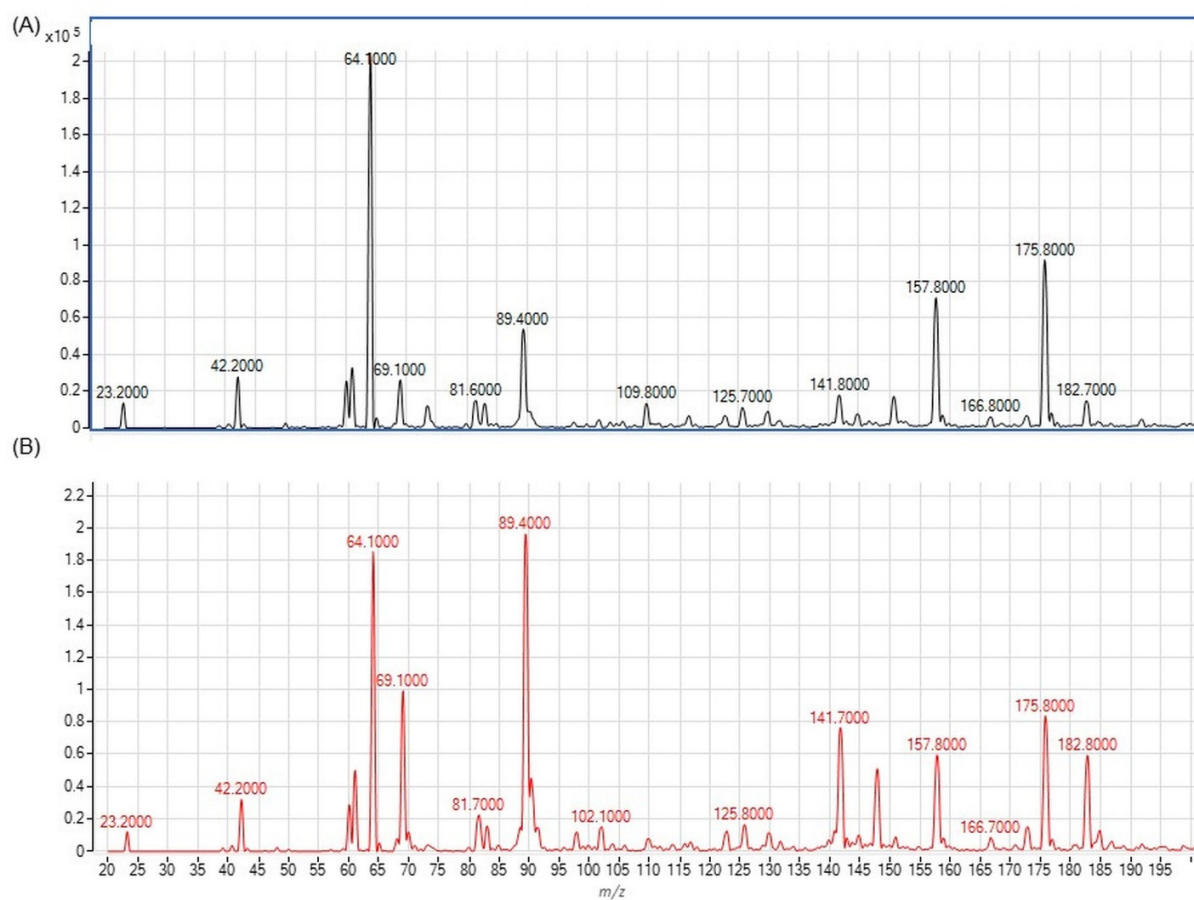


Figure S5. MS scan of NH_2AA (D1) in acidic medium analyzed on day 0 (A) and day 30 (B).

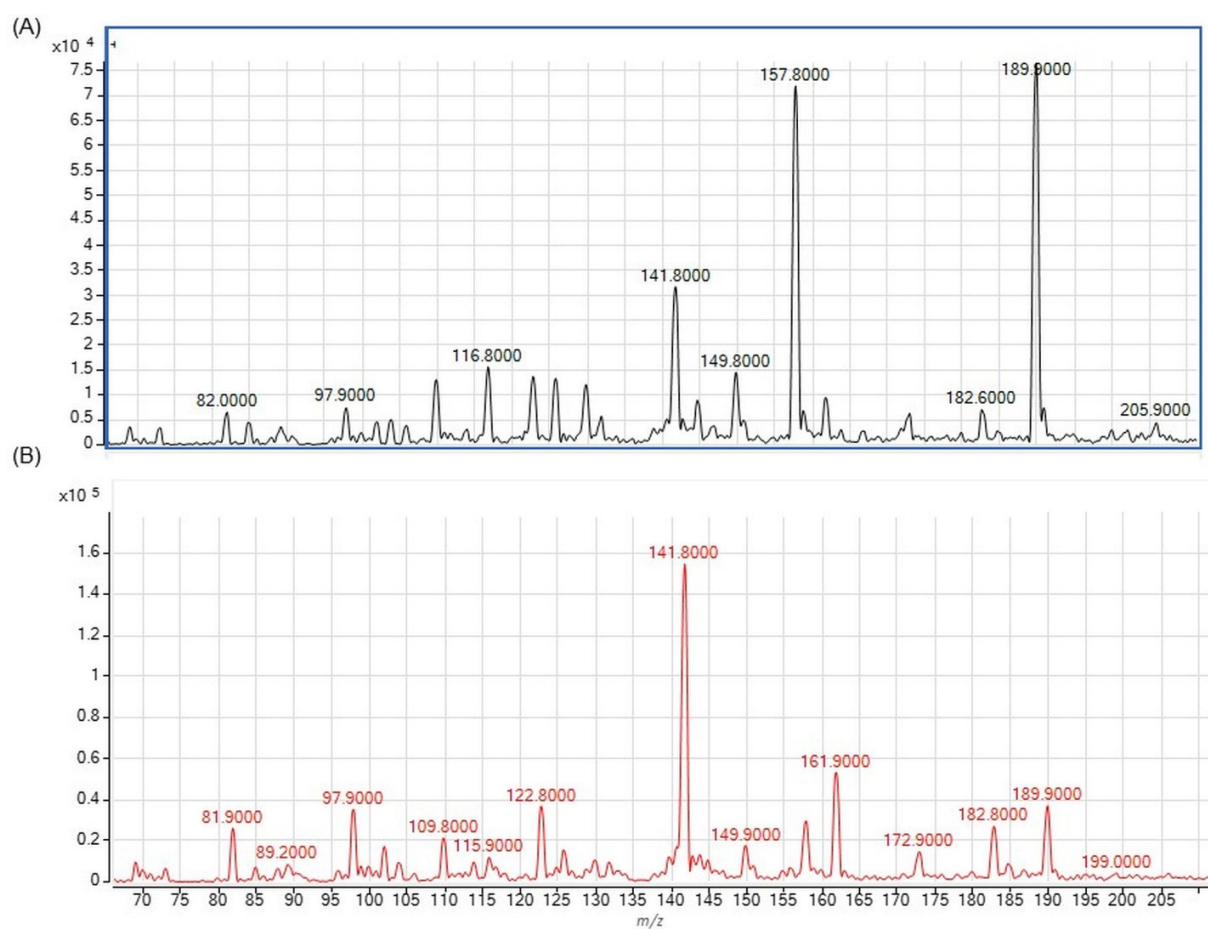


Figure S6. MS scan of CH_3NHAA (D2) in acidic medium analyzed on day 0 (A) and day 30 (B).

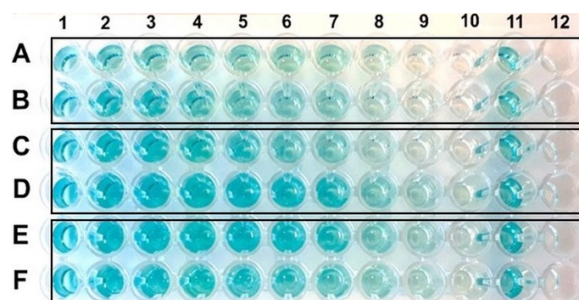


Figure S7. ABTS analysis of newly synthesized derivatives: NH_2AA (D1) and CH_3NHAA (D2) on a microtiter plate. Rows A, B, C denote derivative D1, rows D, E, F denote derivative D2. Column 11 contains a blank sample (Milli-Q water and ABTS solution for analysis), column 12 contains a blank (Milli-Q water).

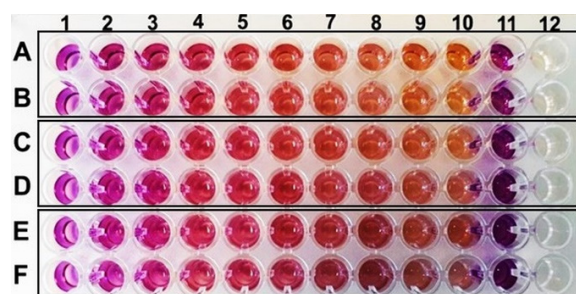


Figure S8. DPPH analysis of newly synthesized derivatives: NH_2AA (D1) and CH_3NHAA (D2) on a microtiter plate. Rows A, B, C denote derivative D1, rows D,E,F denote derivative D2. Column 11 contains a blank sample (Milli-Q water and DPPH solution for analysis), column 12 contains a blank (Milli-Q water).