SUPPLEMENTARY ELECTRONIC INFORMATION for

Probing the Interaction between Cisplatin and the Therapeutic Monoclonal Antibody Trastuzumab

Alessia Lasorsa,^a Maurizio Losacco,^a Rosa Maria Iacobazzi,^{b,c} Letizia Porcelli,^c Amalia Azzariti,^c Giovanni Natile,^a and Fabio Arnesano^a

^aDepartment of Chemistry, University of Bari "Aldo Moro", via E. Orabona 4 70125 Bari, Italy. ^bDepartment of Pharmacy-Drug Sciences, University of Bari "Aldo Moro", via E. Orabona 4 70125 Bari, Italy

°Istituto tumori IRCCS Giovanni Paolo II, viale O. Flacco 65 70124 Bari, Italy

Contents

Fig. S1 SEC analysis of 100 μ M trastuzumab in ammonium acetate 20 mM at pH 6 (black contour), 100 μ M trastuzumab after 12 h digestion with papain at 25 °C (red contour) and 100 μ M trastuzumab after 2 h digestion with papain at 37 °C (blue contour).

Fig. S2 ESI-MS spectrum from m/z 1000 to 2800 of Fc fragment comprising multiple charged states from +44 to +20 (A). Close-up of A across the range from m/z 1520 to 1680, 4 distinctive peaks can be seen for each charged state.

Fig. S3 ESI-MS spectrum of Long Fab from m/z 1000 to 2500 (A). Close-up of A across the range from m/z 1380 to 1520 (B). ESI-MS spectrum of Long and Short Fab in 1:1 ratio from m/z 1000 to 2500 (C). Close-up of C across the range from m/z 1380 to 1520 (D).

Fig. S4 ESI-MS spectra from m/z 1420 to 1520 of Long Fab incubated with cisplatin (1:20 ratio) for 12 h at 37 °C. Peaks of Long Fab-Pt(NH₃)₂Cl⁺ adduct are shown in red.



Fig. S1 SEC analysis of 100 μ M trastuzumab in ammonium acetate 20 mM at pH 6 (black contour), 100 μ M trastuzumab after 12 h digestion with papain at 25 °C (red contour) and 100 μ M trastuzumab after 2 h digestion with papain at 37 °C (blue contour).



Fig. S2 ESI-MS spectrum from m/z 1000 to 2800 of Fc fragment comprising multiple charged states from +44 to +20 (A). Close-up of A across the range from m/z 1520 to 1680, 4 distinctive peaks can be seen for each charged state



Fig. S3 Normalized ESI-MS spectrum of Long Fab from m/z 1000 to 2500 (A). Close-up of A across the range from m/z 1380 to 1520 (B). Normalized ESI-MS spectrum of Long and Short Fab in 1:1 ratio from m/z 1000 to 2500 (C). Close-up of C across the range from m/z 1380 to 1520 (D).



Fig. S4 ESI-MS spectra from m/z 1420 to 1520 of Long Fab incubated with cisplatin (1:20 ratio) for 12 h at 37 °C. Peaks of Long Fab-Pt(NH₃)₂Cl⁺ adduct are shown in red.