## **Electronic Supplementary Information**

## ACCURATE QUANTIFICATION OF CARBOPLATIN ADDUCTS WITH SERUM PROTEINS BY MONOLITHIC CHROMATOGRAPHY COUPLED TO ICPMS WITH ISOTOPE DILUTION ANALYSIS

Raquel Larios<sup>1,2</sup>, M. Estela del Castillo Busto<sup>1</sup>, Daniel Garcia-Sar<sup>1,3</sup>, Christian Ward-Deitrich<sup>1</sup> and Heidi Goenaga-Infante<sup>1\*</sup>

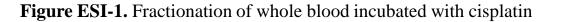
<sup>1</sup>LGC Limited, Queens Road, Teddington, Middlesex TW11 0LY, UK <sup>2</sup>Agilent Technologies, Calle Jose Echegaray, 8, 28232 Las Rozas, Madrid, Spain <sup>3</sup>AGQ Labs, Carretera Castilblanco A-433, Km. 24, 3, 41220 Burguillos, Sevilla, Spain \* Corresponding author: Heidi.Goenaga-Infante@lgcgroup.com

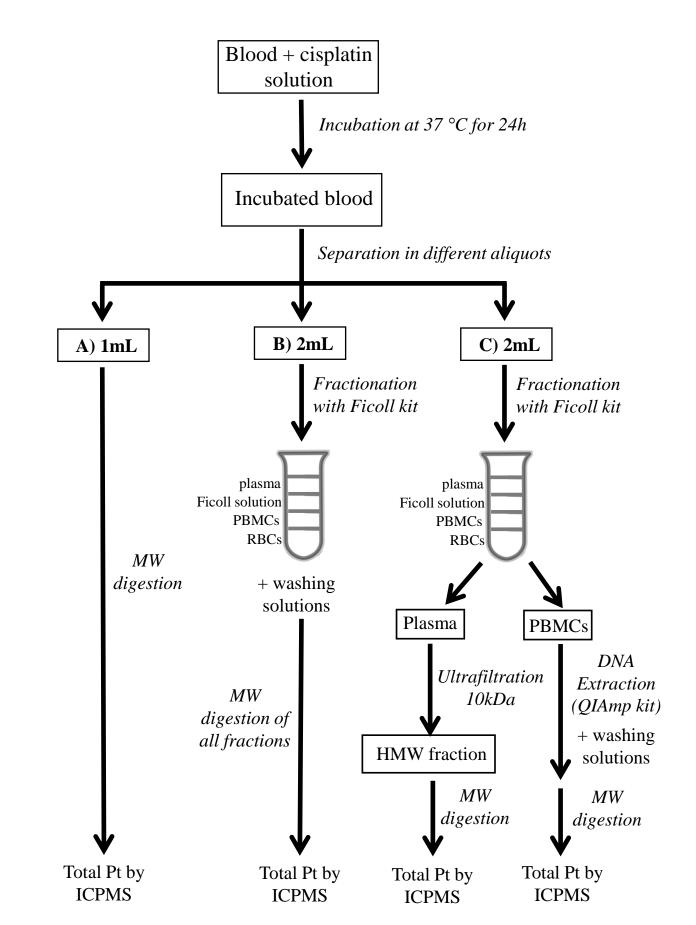
Figure ESI-1. Fractionation of whole blood incubated with cisplatin

**Figure ESI-2.** Workflow for calculation of reaction yields of incubation of proteins standards with carboplatin using different approaches (A and B).

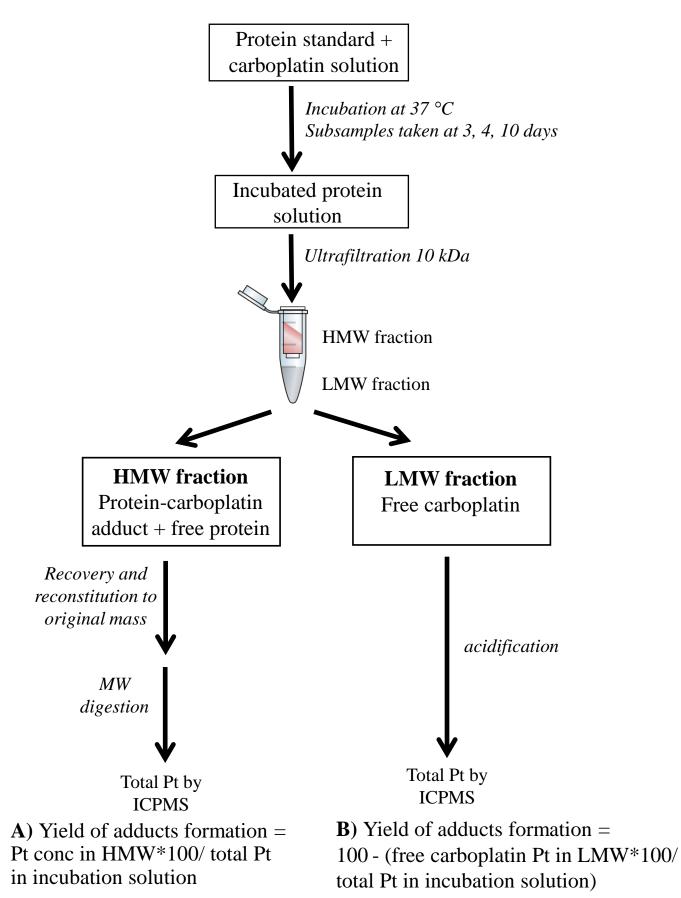
**Figure ESI-3.** Preparation and characterization of <sup>nat</sup>carboplatin-HSA calibrant and <sup>194</sup>carboplatin-HSA spike

**Figure ESI-4.** Incubation of ERM®- DA470k/IFCC serum with carboplatin and Double Species-specific IDA HPLC-ICPMS for quantification of Pt-HSA adducts in the model sample

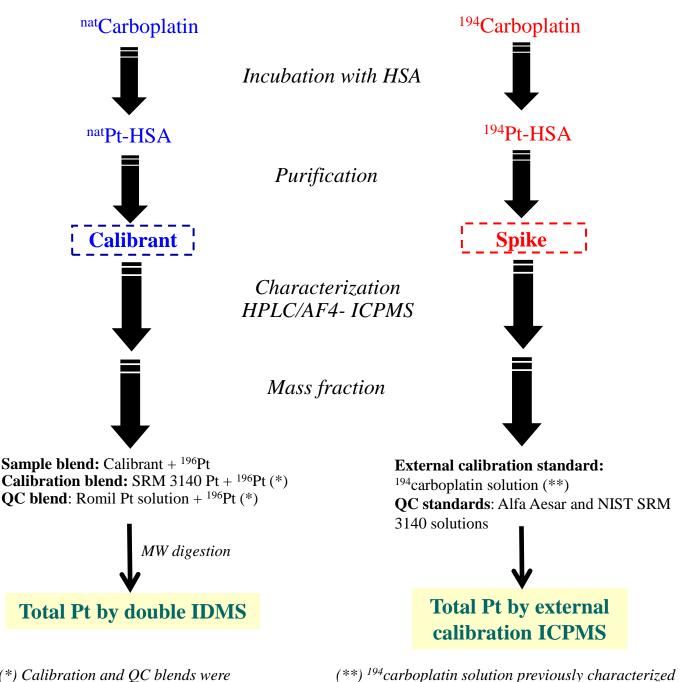




**Figure ESI-2.** Workflow for calculation of reaction yields of incubation of proteins standards with carboplatin using different approaches (A and B).

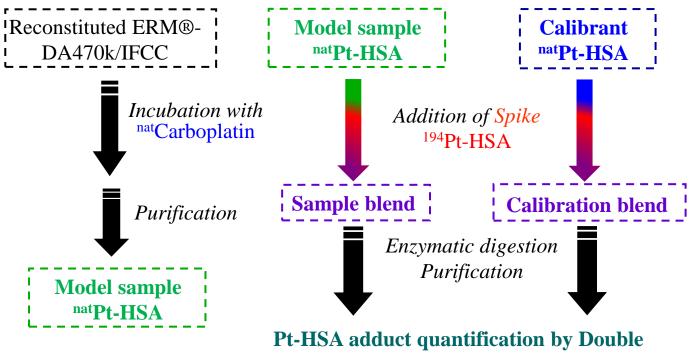


**Figure ESI-3.** Preparation and characterization of <sup>nat</sup>carboplatin-HSA calibrant and <sup>194</sup>carboplatin-HSA spike



in total Pt content by external calibration ICP-OES

(\*) Calibration and QC blends were analyzed undigested to calculate recovery of MW digestion process **Figure ESI-4.** Incubation of ERM®- DA470k/IFCC serum with carboplatin and Double Species-specific IDA HPLC-ICPMS for quantification of Pt-HSA adducts in the model sample



species-specific IDA HPLC-ICPMS