

Capillary Electrophoresis Mass Spectrometry Approaches for Characterization of the Protein and Metabolite Corona Acquired by Nanomaterials

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Materials

Name	Company	Catalog Number	Comments
1,4-Dithiothreitol	Sigma	10197777001	
2,2,4,4-D4-citric	Simga	485438-1G	Internal standard anion
Ammonium Acetate>98%	Sigma	A1542	
Ammonium Bicarbonate>99.5%	Sigma	09830	
Capillary cartridge coolant	Sciex	359976	
CESI 8000 instrument	Sciex	A98089	
CESI Cap	Sciex	B24699	
CESI Vials	Sciex	B11648	
Chloroform	Sigma	650498	Toxic, use in a fume hood
Glacial Acetic acid	Sigma	A6283	
Hydrochloric acid 1mol/L	Sigma	43617	
Isoacetamide	Sigma	I1149	
L-methionine sulfone	Sigma	M0876-1G	Internal standard cation
Methonal (LC-MS Ultra Chromasolve)	Sigma	14262	Use in a fume hood
Microvials	Sciex	144709	
nanoVials	Sciex	5043467	
Neutral Surface Cartridge 30 µm ID x 90 cm total length	Sciex	B07368	
OptiMS Adapter for Sciex Nanospray III source	Sciex	B07363	B07366 and B83386 for Thermo mass spectrometers, B85397 for Waters mass spectrometers, B86099 for Bruker mass spectrometers
OptiMS Fused-Silica Cartridge 30 µm ID x 90 cm total length	Sciex	B07367	

Phospahte buffered saline 10x	Sigma	P7059	
Pierce C18 Tips, 100 µL bed	Thermo Fisher Scientific	87784	
Polystyrene 100 nm	Polysciences Inc	876	
Polystyrene carboxylated 100 nm	Polysciences Inc	16688	
Polystyrene carboxylated 1000 nm	Polysciences Inc	08226	
Rapigest SF (surfactant)	Waters	186001860	
Sequencing Grade modified Trypsin	Promega	V5111	
SiO2 Ludox TM-40	Sigma	420786	
Sodium Hydroxide solution	Sigma	72079	
TiO2 Dispex coated	Promethion particles	Bespoke particles	
TiO2 PVP coated	Promethion particles	Bespoke particles	
TiO2 uncoated	Promethion particles	Bespoke particles	