Electronic Supplementary Material (ESI) for Analyst

Electronic Supplementary Information

To

Head Group-Modified Lipid Surface Modification for Highly Selective Analyte Extractions on Capillary-Channeled Polymer (C-CP) Fibers

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Preparation of TEM8-mCit

TEM8-mCit was expressed using T7 express, a BL21 strain of E. coli. Cells were grown in 1L of ECPM1 at 37 °C. Cells were induced at 37 °C with 0.8 mM IPTG for 3 hours. The cells were pelleted to remove the spent media and frozen in a -80 °C freezer. When ready to use, the pellet was re-suspended in approximately 20 mL 50 mM phosphate, 300 mM NaCl, 10 mM imidazole, and 0.1% Tween-20,pH 7.8-8). The solution was then lysed and sonicated briefly to reduce viscosity. The lysate was centrifuged to provide a cleared supernatant with minimal remaining cell debris. The concentration of TEM8-mCit in this cleared cell lysate (termed TEM8-*mCit lysate*) was determined, using a Nanovue Spectrophotometer (GE Healthcare, Little Chalfont, UK) at 516nm, to be ~14 nM. To yield purified TEM8-mCit (containing a hexahistidine tag), supernant was loaded onto a His column, and protein was eluted with 20-40 mM imidazole. The eluted protein was further purified by SEC and finally concentrated to 1 mL. The concentration of purified TEM8-mCit was determined to be ~200 nM.