## **Supporting information**

## Identification of arsenic-binding proteins in human cells by affinity chromatography and mass spectrometry

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Figure S1. The reaction involved in the immobilization of NPAO to a solid support



Figure S2. The reaction involved in measuring the amount of immobilized NPAO<sup>III</sup> on the affinity column.



Figure S3. Electrophoresis image of Membrane/organelle extraction fraction of A549 cells applied to non affinity control column. lane1: unbound protein fraction washed off by buffer A; lane 2 to 7: 6 round washes by buffer B; lane 8: eluted by 50 mM DDT in buffer A; lane 9 & 10: eluted by 100 mM DTT in buffer B



Figure S4. Tandem spectra of peptide (a) m/z 586 (+3), identified as LPSEGPQPAHVVVGDVR, (b) m/z 606 (+3), identified as LQDVTDDHIR. Both peptides belong to bovine biliverdin reductase B (Bovine BLVRB), an impurity present in the carbonic anhydrase II sample.