

Synthesis of [^{211}At]4-astato-L-phenylalanine by dihydroxyboryl-astatine substitution reaction in aqueous solution

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FIGURES

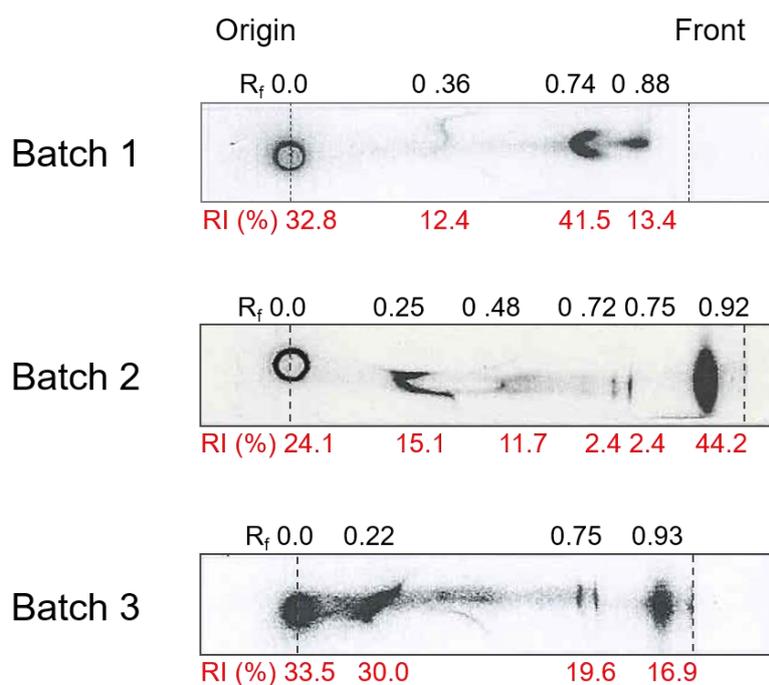


Fig. S1 Thin layer chromatogram of aqueous solution of ^{211}At

The radioactivity profiles of the chromatograms varied from batch to batch.

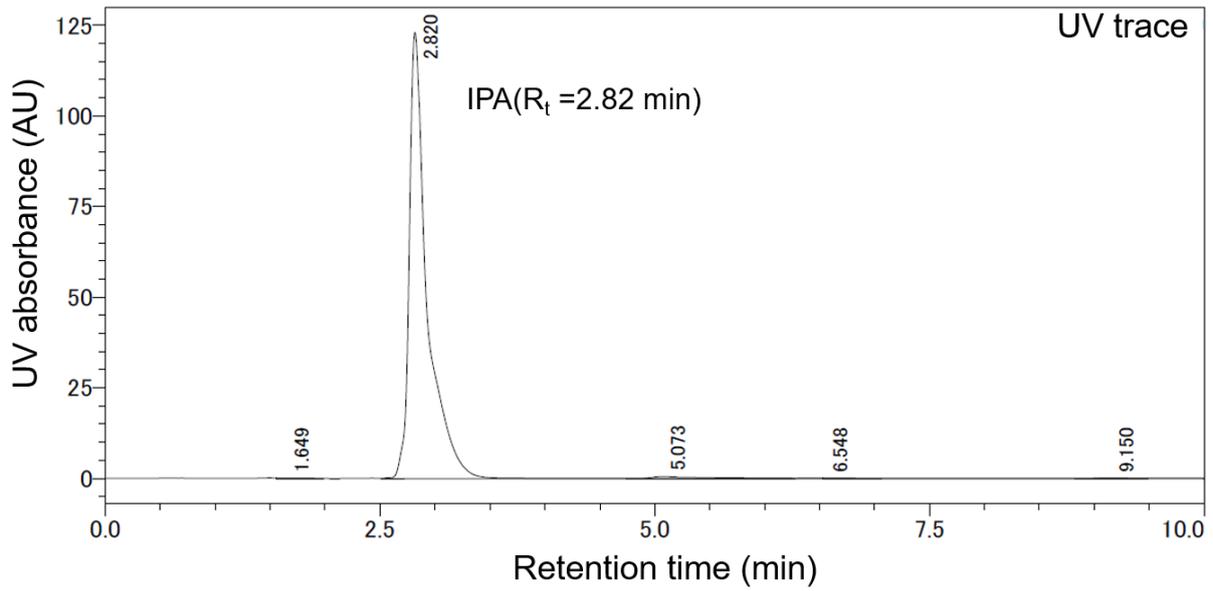


Fig. S2 HPLC profiles of 4-iodo-L-phenylalanine (IPA)

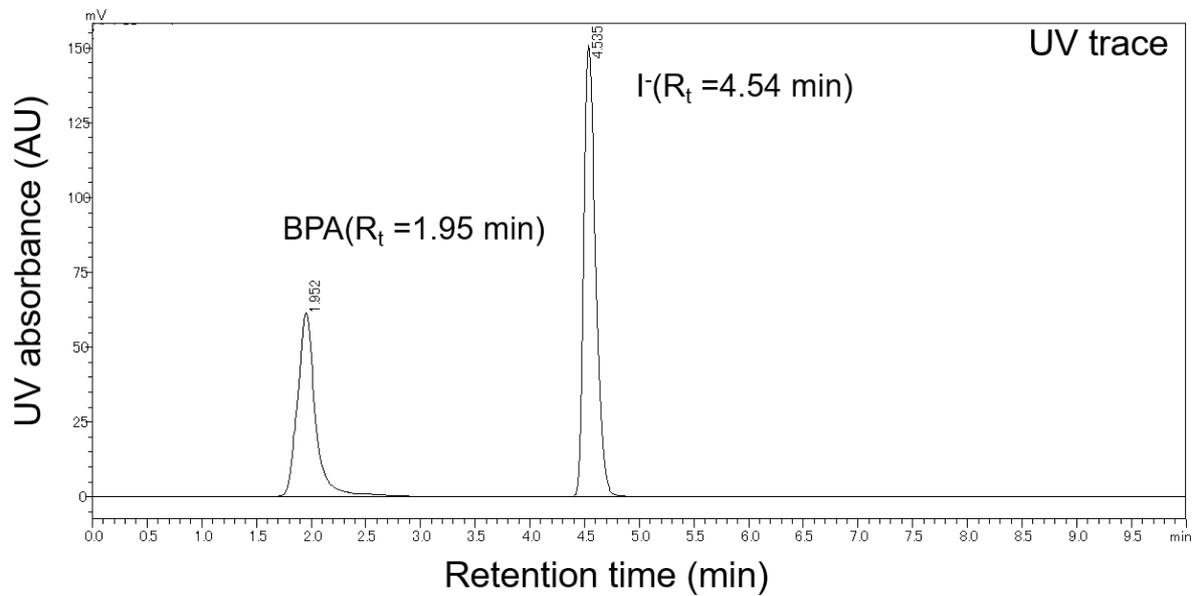


Fig. S3 HPLC profile of 1:1 mixture of BPA and KI

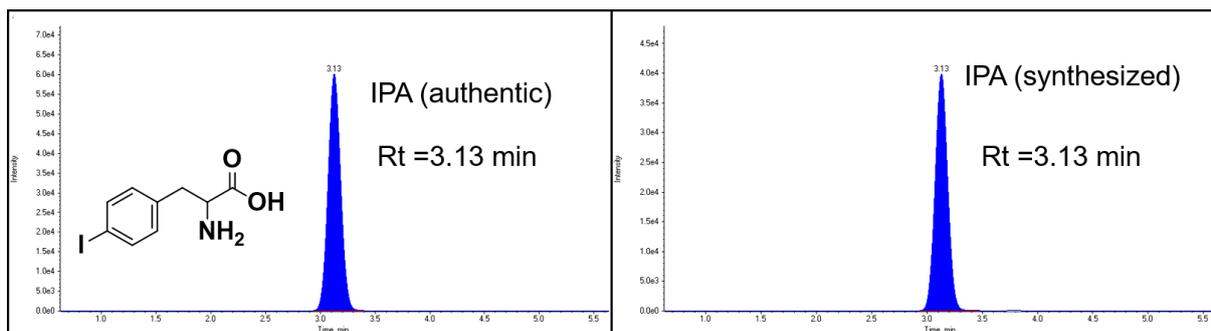


Fig. S4 LC-MS analysis of IPA

Authentic reference (left) and synthesized product from the boron-iodine substitution reaction between BPA and NaI (right).

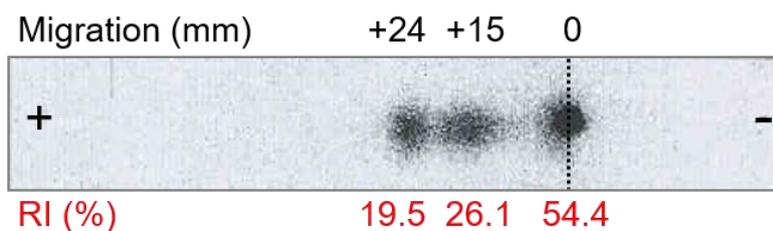


Fig. S5. Electrophoresis of aqueous solution of ^{211}At

Strip: Cellulose acetate film, Electrolyte: 0.06 mol/L barbital buffer, pH 8.5,
 Constant voltage: 133 V, Constant current: 1 mA/cm, Time duration: 20 min

Three radioactive species were detected in the aqueous solution of ^{211}At . Two of them were negatively charged ions having migration distances of +15 mm and +24 mm. The third species was neutral and remained on the origin line (0 mm).

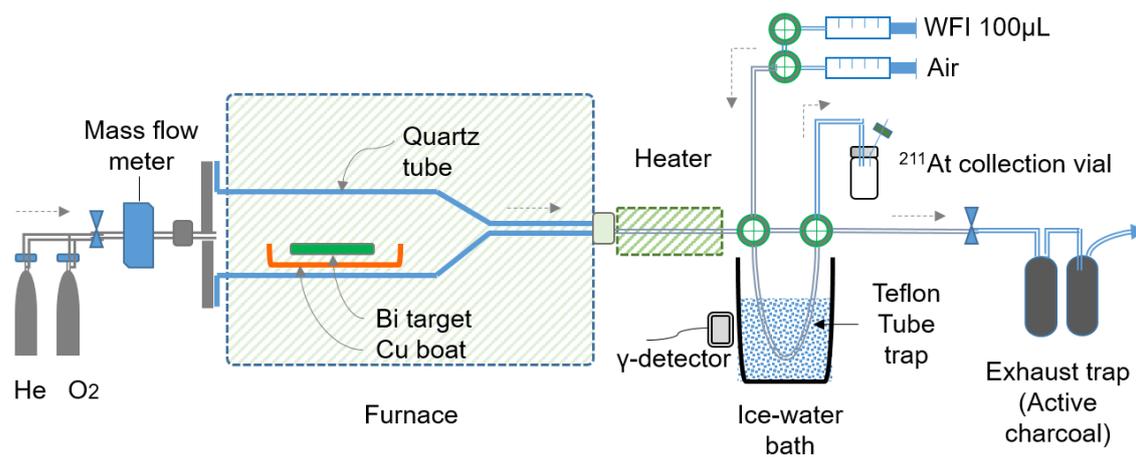


Fig. S6 Apparatus for dry-distillation of ^{211}At