

## Supporting Information

*In vivo* evaluation of limiting brain penetration of probes for  $\alpha_{2C}$ -adrenoceptor by small-animal positron emission tomography study

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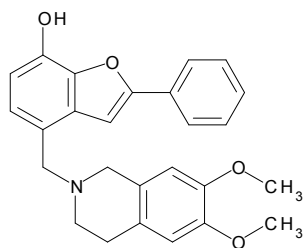
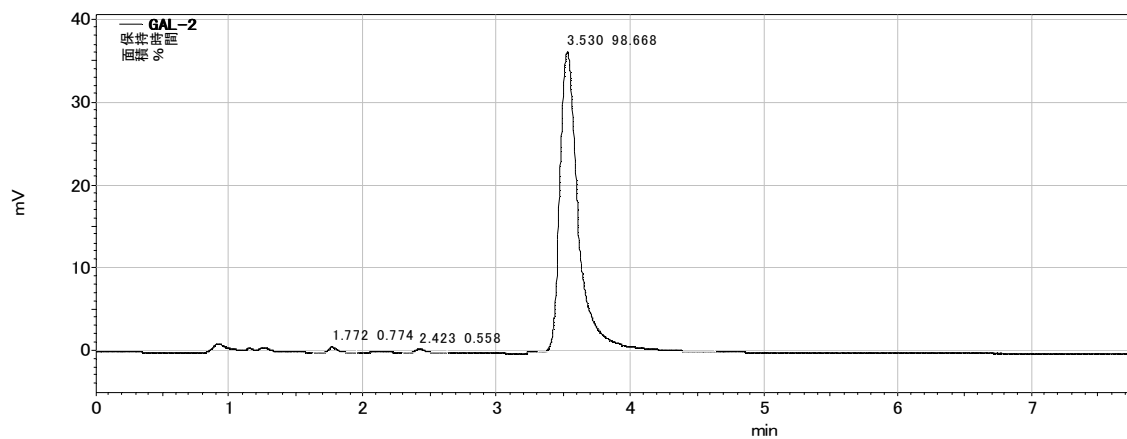
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## 1. HPLC chart of compound 6

Condition: column, Capcell Pak C18 UG 80 (4.6 mm internal diameter × 250 mm length; Shiseido); elution, 0.1 mol/l ammonium formate (50:50, v/v); flow rate, 2.0 ml/min; retention time of compound 6 was 3.5 min.

Chemical purity: 98.7 %

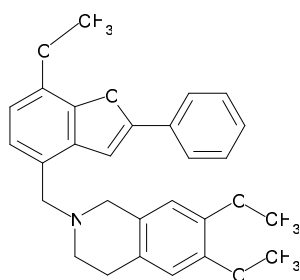
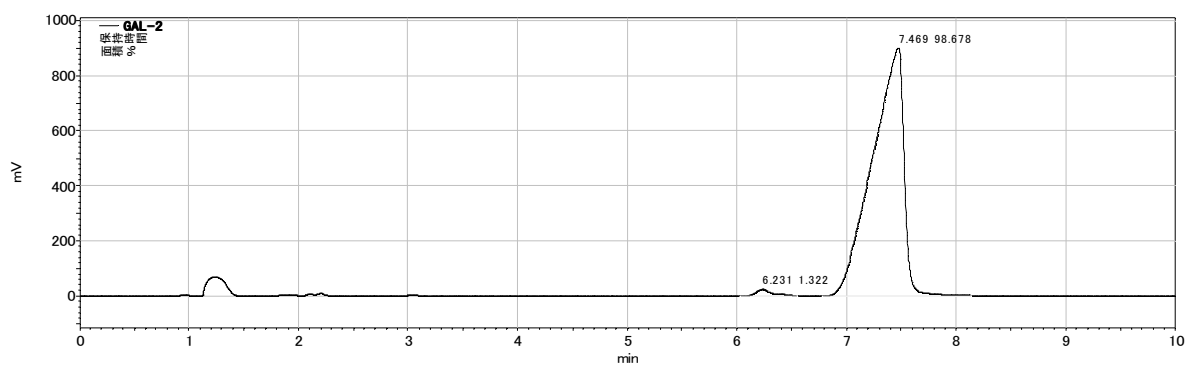


Compound 6

## 2. HPLC chart of MBF

Condition: column, Capcell Pak C18 UG 80 (4.6 mm internal diameter × 250 mm length; Shiseido); elution, 0.1 mol/l ammonium formate (60:40, v/v); flow rate, 2.0 ml/min; retention time of compound 6 was 7.5 min.

Chemical purity: 98.7 %

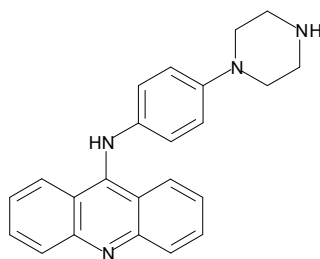
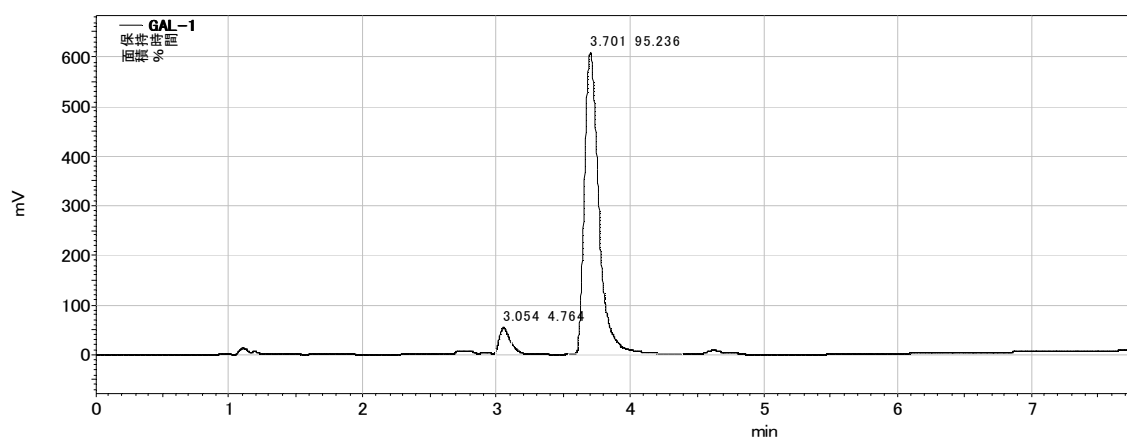


**MBF**

### 3. HPLC chart of compound **11**

Condition: column, X Bridge C18 (4.6 mm internal diameter × 150 mm length; Waters);  
elution, acetonitrile and 0.1% triethylamine in water (40:60, v/v); flow rate, 1.5 ml/min;  
retention time of compound **11** was 3.7 min.

Chemical purity: 95.2 %



Compound **11**