

## Supporting Information

### Synthesis of Metapristone through an Efficient *N*-Demethylation of Mifepristone

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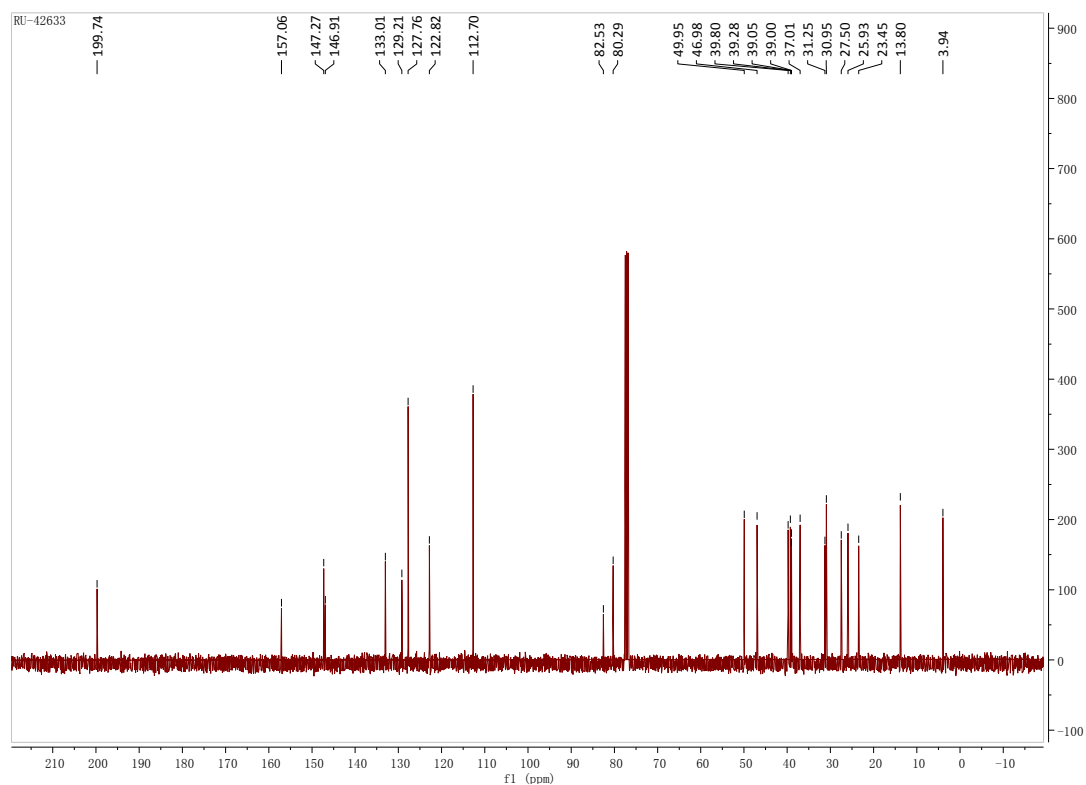
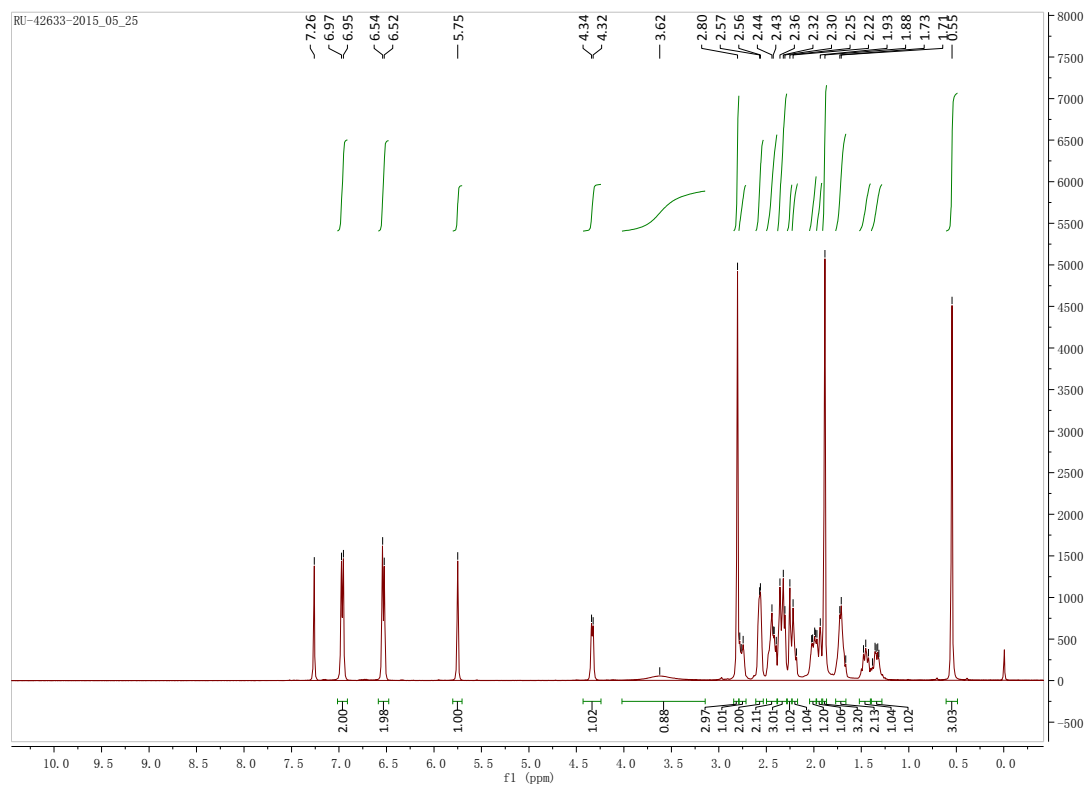
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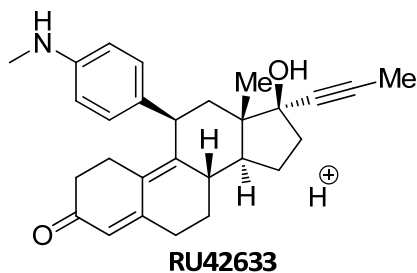
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# 1. Copies of $^1\text{H}$ and $^{13}\text{C}$ NMR spectra of RU-42633



## 2. HRMS spectra of RU-42633

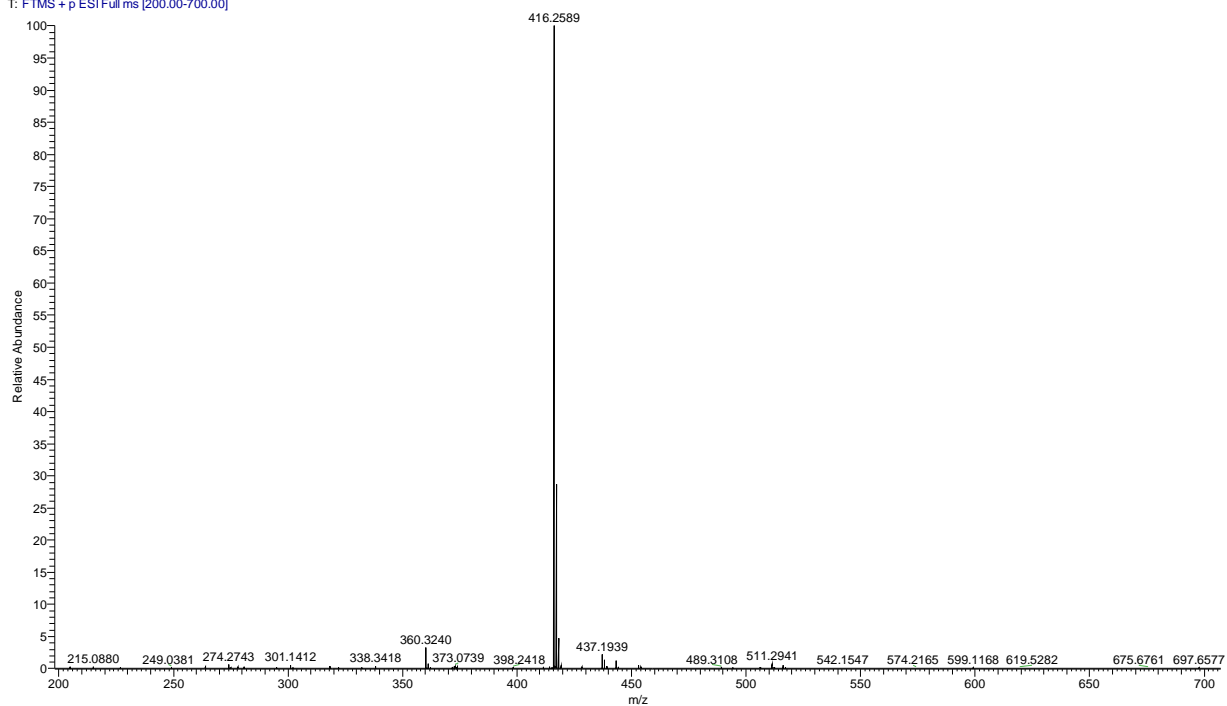


Chemical Formula:  $C_{28}H_{34}NO_2^+$

Exact Mass: 416.2584

Found: 416.2589

RV-42633 #761-777 RT: 1.78-1.82 AV: 17 NL: 2.11E8  
T: FTMS + p ESI Full ms [200.00-700.00]



### 3. Photographic guide for the synthesis of RU-42633 (grams scale)



**Fig. S1.** Left: Materials and reagents. Right: To a solution of mifepristone (2.5 g) and LiOAc (1.92 g) in 90 mL THF was added I<sub>2</sub>/MeOH (46 mL) at 0 °C.



**Fig. S2.** Left: The reaction was stirred at r.t. under argon atmosphere. Right: The reaction was monitored by TLC (PE/EA = 2/1).



**Fig. S3.** Left: TLC plate, the reaction mixture was stirred for 24 h. Right: The reaction was quenched by 5% Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> (aq) at 0 °C.



**Fig. S4.** Left: The organic layer was concentrated under reduced pressure after extraction (EA/H<sub>2</sub>O). Right: The crude product was dissolved by CH<sub>2</sub>Cl<sub>2</sub>.



**Fig. S5.** Left: The residue was purified by a silica gel column (PE/EA = 1/1). Right: The desired product RU-42633 (2.22 g, 92% yield) was obtained as a yellow solid.