

Supporting Information**Novel 1',1'-Chain Substituted Hexahydrocannabinols: 9 β -Hydroxy-3-(1-hexyl-cyclobut-1-yl)-hexahydrocannabinol (AM2389) a Highly Potent Cannabinoid Receptor 1 (CB1) Agonist.**

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Table 1S: Elemental analyses

Compd.	Mol. Formula	Calcd.	Found
5a	C ₂₆ H ₃₆ O ₃	C: 78.75, H: 9.15	C: 78.46, H: 8.80
5b	C ₂₆ H ₃₈ O ₃	C: 78.35, H: 9.61	C: 78.04, H: 9.84
5c	C ₂₄ H ₃₄ O ₃ S ₂	C: 66.32, H: 7.88	C: 66.57, H: 8.10
5d	C ₂₅ H ₃₄ O ₃	C: 78.49, H: 8.96	C: 78.16, H: 9.19
5e	C ₂₅ H ₃₆ O ₃	C: 78.08, H: 9.44	C: 77.77, H: 9.69
6a	C ₂₆ H ₃₆ O ₃	C: 78.75, H: 9.15	C: 78.51, H: 8.87
6b	C ₂₆ H ₃₈ O ₃	C: 78.35, H: 9.61	C: 78.64, H: 9.83
6c	C ₂₄ H ₃₄ O ₃ S ₂	C: 66.32, H: 7.88	C: 66.65, H: 7.53
6d	C ₂₅ H ₃₄ O ₃	C: 78.49, H: 8.96	C: 78.74, H: 8.71
6e	C ₂₅ H ₃₆ O ₃	C: 78.08, H: 9.44	C: 77.77, H: 9.79
14a	C ₂₄ H ₃₃ BrO ₃	C: 64.14, H: 7.40	C: 64.51, H: 7.51
14b	C ₂₅ H ₃₅ BrO ₃	C: 64.79, H: 7.61	C: 64.50, H: 7.95
14c	C ₂₆ H ₃₇ BrO ₃	C: 65.40, H: 7.81	C: 65.69, H: 8.02
15a	C ₂₄ H ₃₃ BrO ₃	C: 64.14, H: 7.40	C: 63.78, H: 7.15

15b	$C_{25}H_{35}BrO_3$	C: 64.79, H: 7.61	C: 65.05, H: 7.92
15c	$C_{26}H_{37}BrO_3$	C: 65.40, H: 7.81	C: 65.71, H: 7.15
16	$C_{25}H_{33}NO_3$	C: 75.91, H: 8.41, N: 3.54	C: 75.55, H: 8.13, N: 3.18
22	$C_{24}H_{33}BrO_3$	C: 64.14, H: 7.40	C: 64.06, H: 7.14
7c-β	$C_{24}H_{36}O_3S_2$	C: 66.01, H: 8.31	C: 66.39, H: 8.64
7e-β	$C_{25}H_{38}O_3$	C: 77.68, H: 9.91	C: 78.03, H: 10.21
23	$C_{24}H_{35}BrO_3$	C: 63.85, H: 7.81	C: 64.15, H: 7.62
24	$C_{24}H_{35}BrO_3$	C: 63.85, H: 7.81	C: 63.58, H: 7.59

^1H NMR, ^{13}C NMR, ^{13}C DEPT, COSY, HSQC, HMBC, and NOESY spectra of compound **5b**.



































