

Supplementary Material

Development of chromenopyrazole-based selective cannabinoid 2 receptor agonists

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Figure S1. ^1H NMR spectrum of *N*-[[(1*S*)-1-[[[(1*S*)-1-[(2-aminoethyl)carbamoyl]ethyl]carbamoyl]ethyl]-4-[4-[9-hydroxy-4,4-dimethyl-7-(2-methyloctan-2-yl)-1*H*,4*H*-chromeno[4,3-*c*]pyrazol-1-yl]phenyl]butanamide.

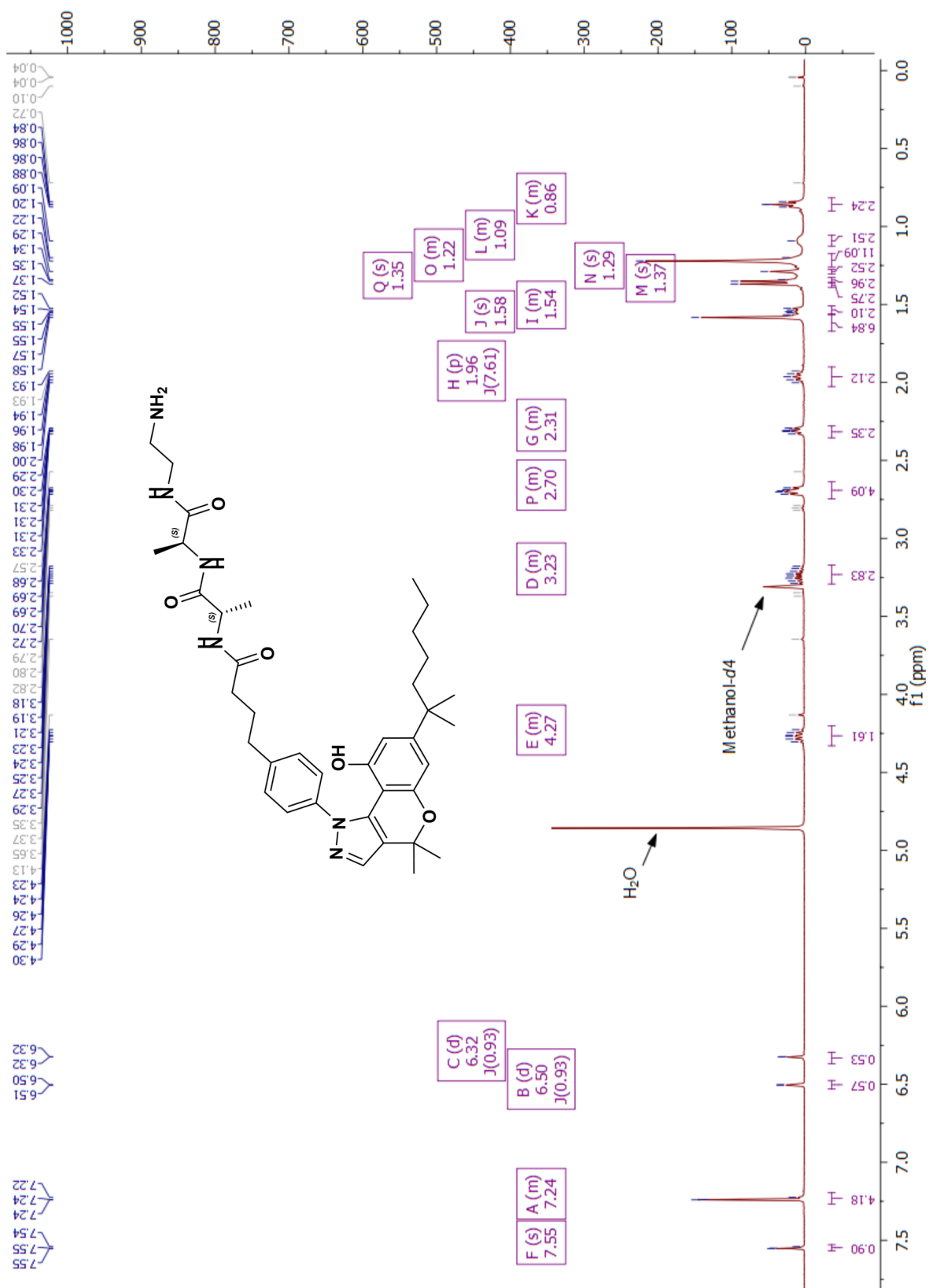


Figure S2. ^{13}C NMR spectrum of *N*-[(1*S*)-1-[[[(1*S*)-1-[(2-aminoethyl)carbamoyl]ethyl]carbamoyl]ethyl]-4-{4-[9-hydroxy-4,4-dimethyl-7-(2-methyloctan-2-yl)-1*H*,4*H*-chromeno[4,3-*c*]pyrazol-1-yl]phenyl}butanamide.

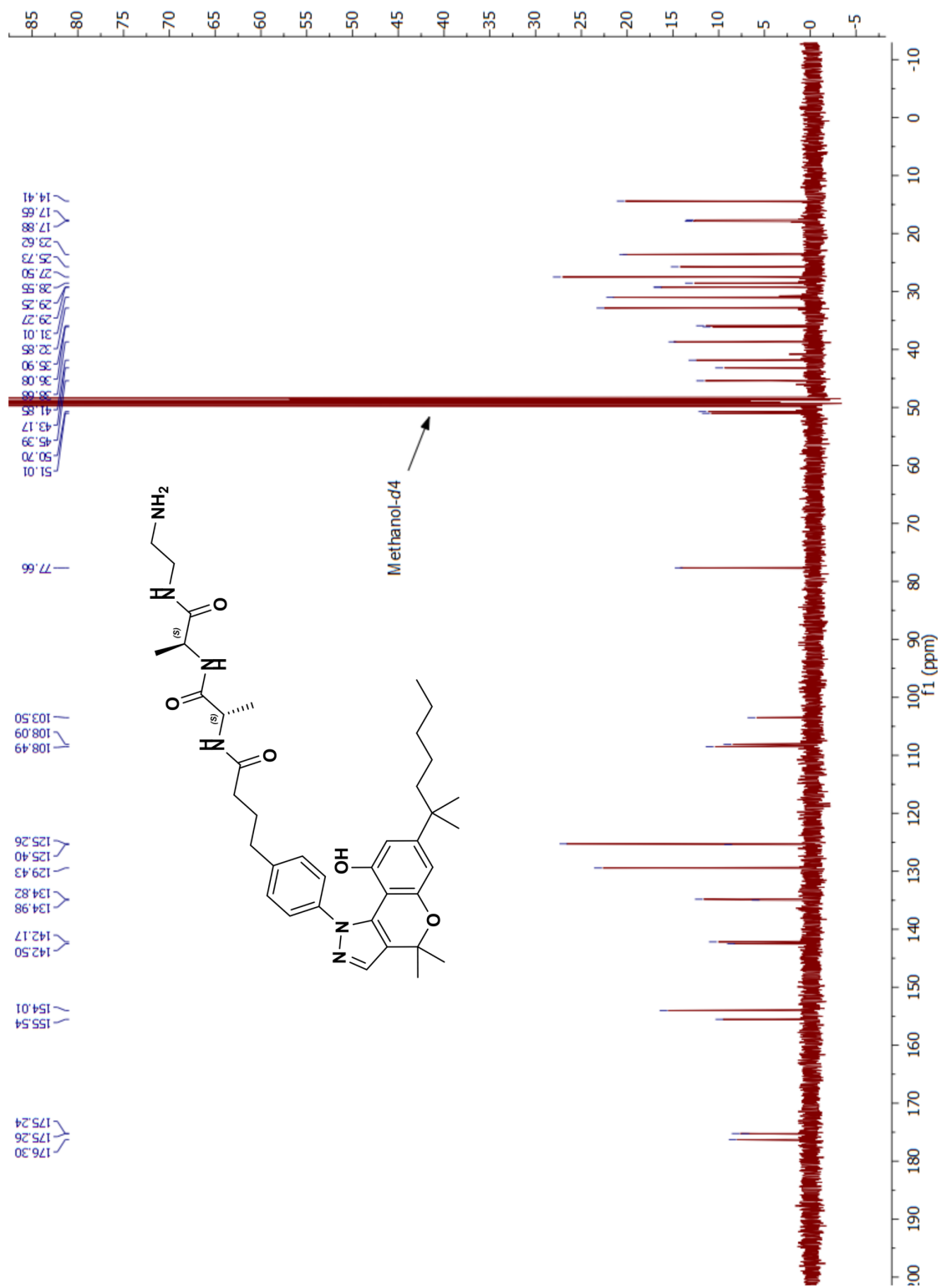


Table S1 Forskolin stimulated % response in cAMP BRET assay at wild type HEK-293 cells.

Compound	% FSK Response \pm SEM^a
2	102.40 \pm 4.05
3	98.28 \pm 1.64
5	104.51 \pm 1.07
6	101.70 \pm 1.77
7	105.86 \pm 7.29
8	98.33 \pm 3.73

Compounds (**2 - 3, 5 - 8**) tested in the cAMP BRET assay at WT-HEK-293 cells at 10 μ M concentration. All data is from two individual experiments performed in duplicate, raw data^a is normalised to forskolin response (100 %) and vehicle response (0 %) and is expressed as mean \pm SEM. One-way ANOVA was carried out to check for statistically significant differences in comparison with the forskolin-only control. No significant difference was detected in the overall ANOVA ($P < 0.01$).

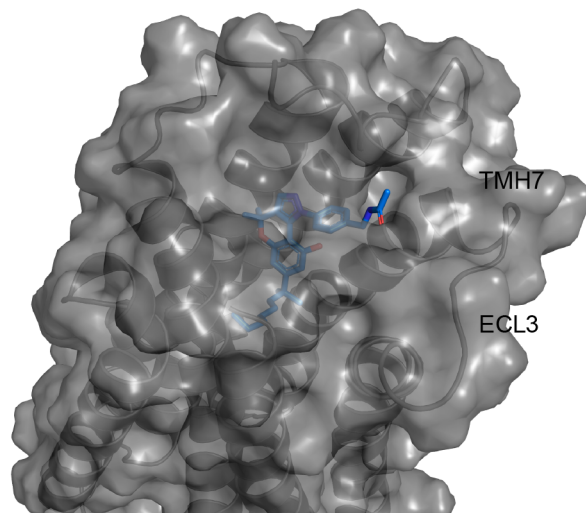


Figure S3. Highest ranked pose of ACS-18 (blue carbons) in CB₂R (grey Connolly surface). A tunnel is visible in the crystal structure that will allow an exit point for dipeptide attachment.