

Supplementary material

A newly discovered small molecule able to support the survival of primary cultured dopamine neurons and alleviate MPTP-induced toxicity *in vivo*

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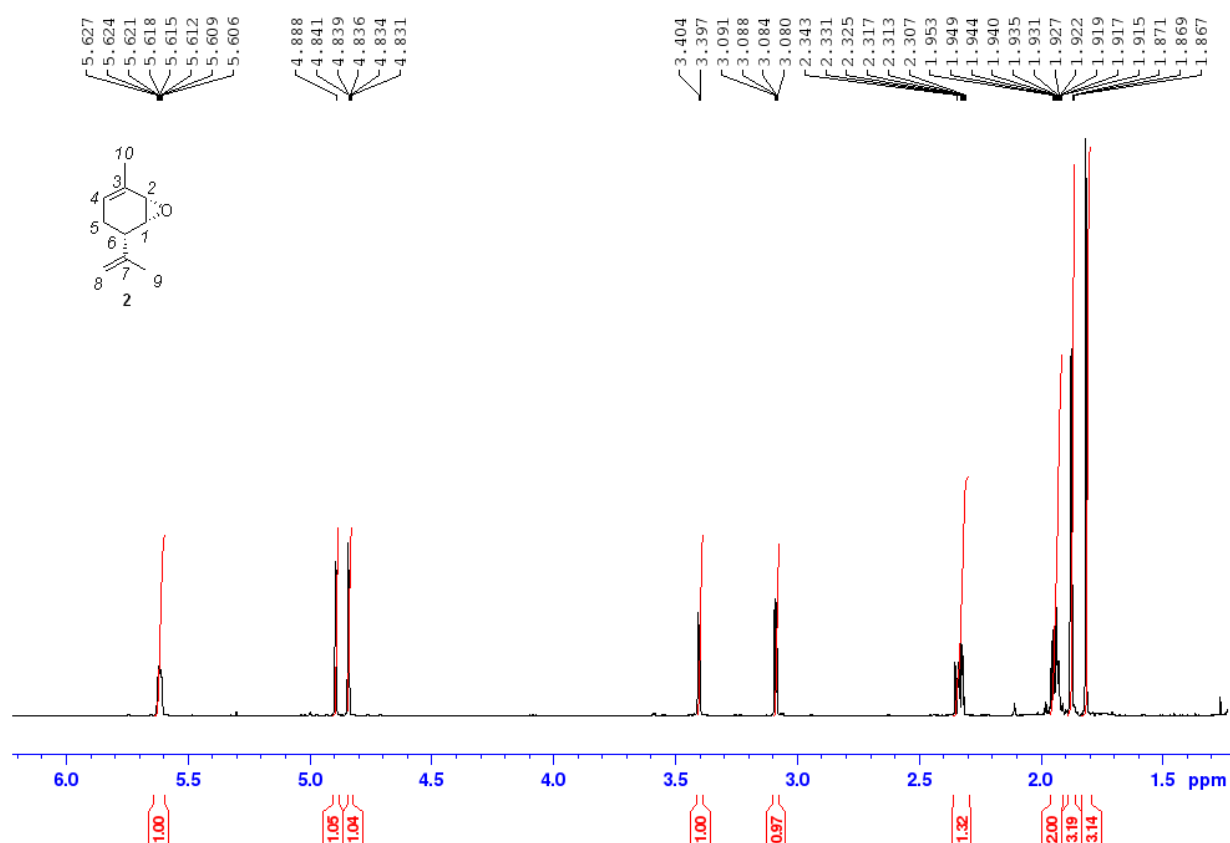


Figure S1: ¹H (600 MHz, CDCl₃) spectrum of **2**

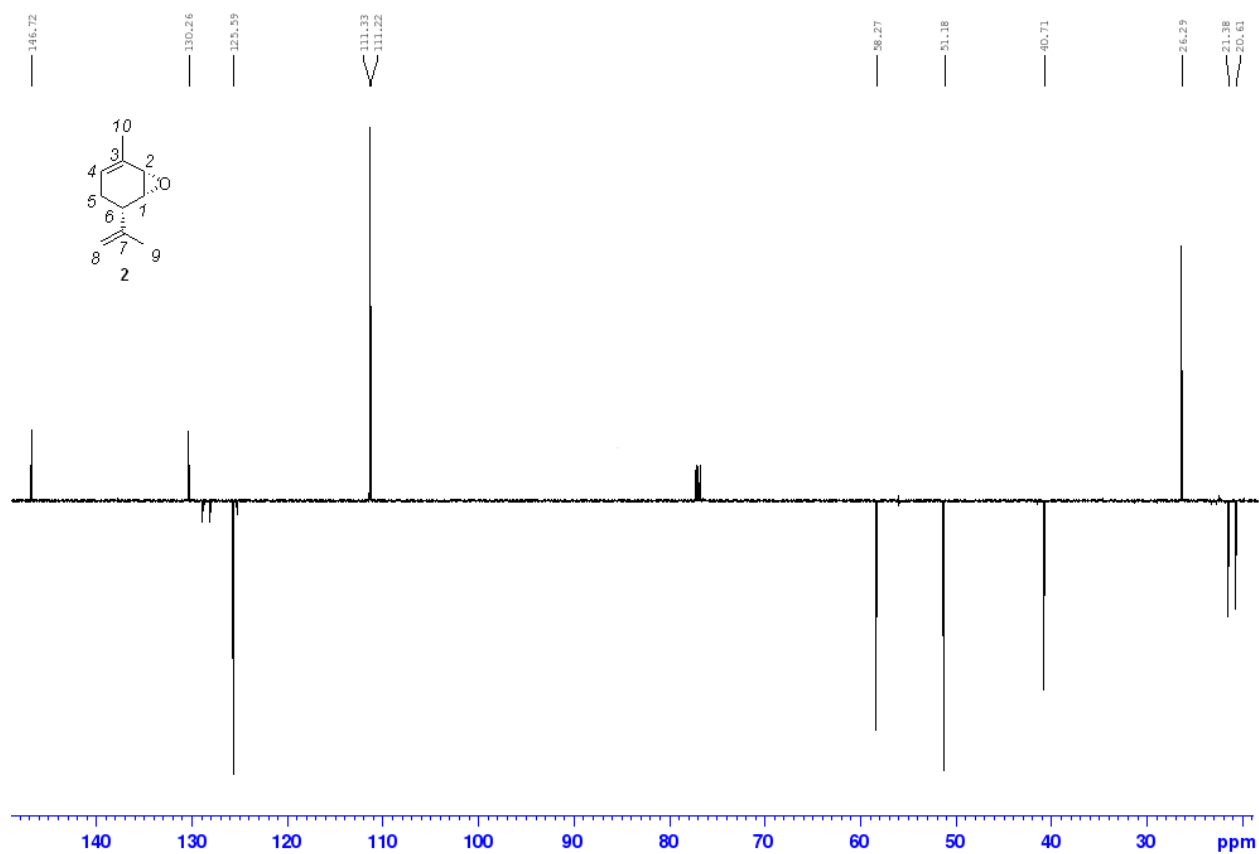


Figure S2: ^{13}C (150 MHz, CDCl_3) spectrum of **2**

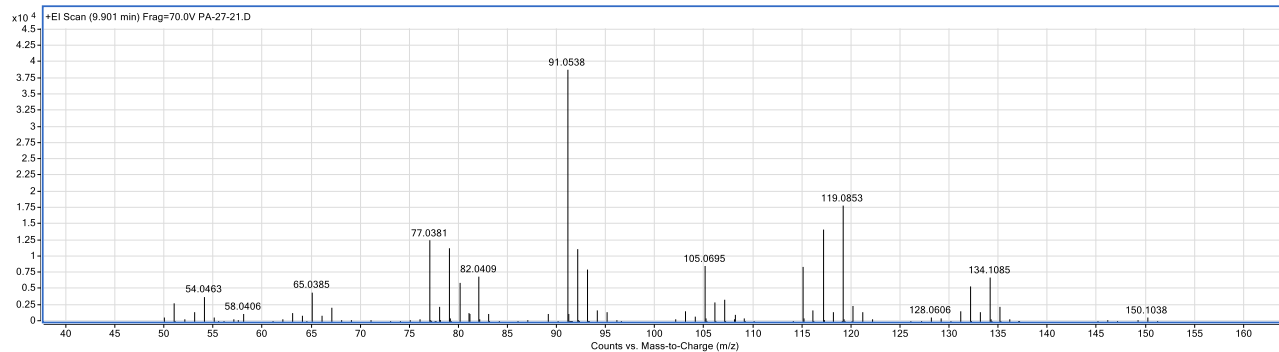


Figure S3: HR-MS spectrum of **2**

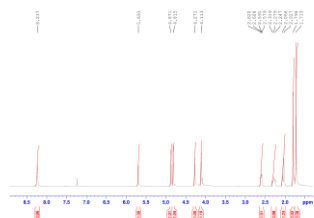
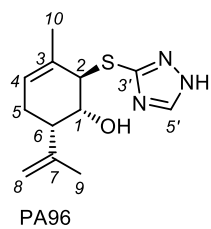


Figure S4: ^1H (400 MHz, CDCl_3) spectrum of PA96

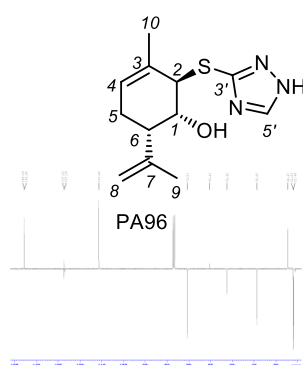


Figure S5: ^{13}C (100 MHz, CDCl_3) spectrum of PA96

PA-96a #8 RT: 0.48 AV: 1 NL: 9.35E5
T: + c EI Full ms [14.50-280.50]

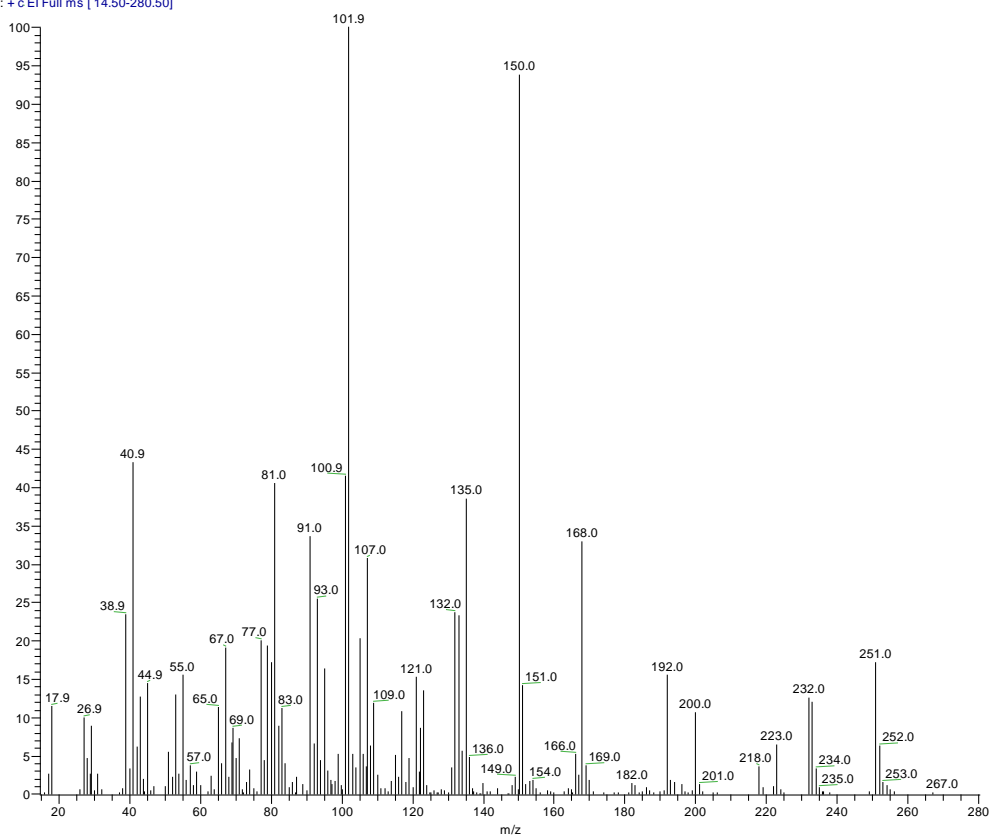


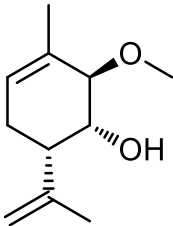
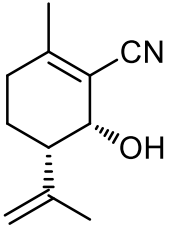
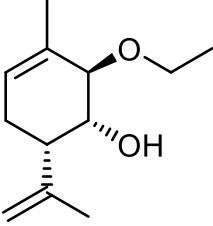
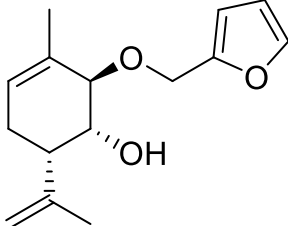
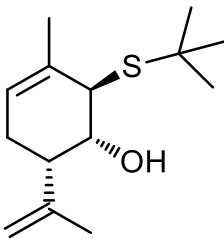
Figure S6: HR-MS spectrum of PA96

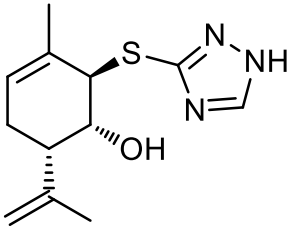
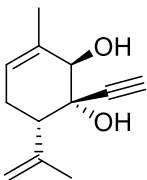
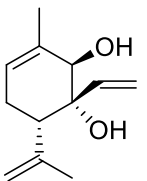
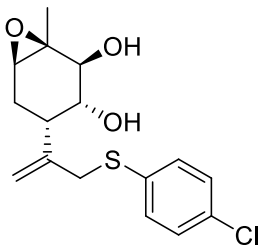
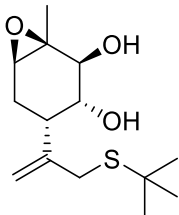
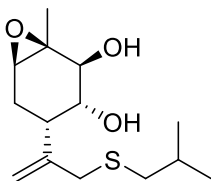
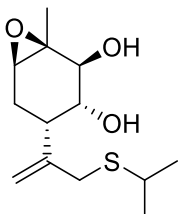
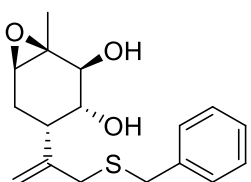
Table S1. Results of screening the effect of diol derivatives on naïve and MPP⁺-treated dopamine neurons

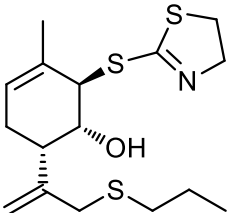
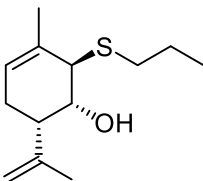
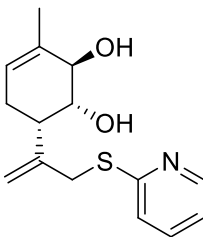
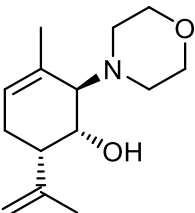
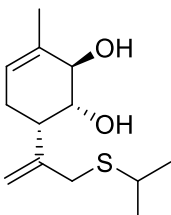
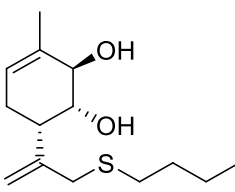
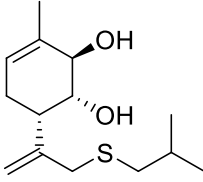
Support effect >100% – +++; 100-70% – ++; 69-30% – +; 29-1% – 0; 0% – -

Inhibition 69-30% – - -; 29-1% – - -

Compared to VEH-treated wells

| Substance | Structure | Naïve | | MPP ⁺ | | |
|-----------|---|--------|------|------------------|-------|--------|
| | | 0,1 uM | 1 uM | 1 nM | 10 nM | 100 nM |
| 1 |  | + | - | | | |
| 2 |  | + | + | | | |
| 3 |  | + | ++ | 0 | 0 | + |
| 4 |  | - | - | | | |
| 5 |  | - | - | | | |

| | | | | | | |
|-------|---|----|----|-----|---|---|
| PA-96 |  | ++ | + | +++ | + | 0 |
| 7 |  | - | - | | | |
| 8 |  | ++ | + | 0 | 0 | 0 |
| 9 |  | - | - | | | |
| 10 |  | - | - | | | |
| 11 |  | 0 | -- | | | |
| 12 |  | 0 | + | | | |
| 13 |  | 0 | - | | | |

| | | | | | | |
|----|---|---|---|--|--|--|
| 14 |  | 0 | + | | | |
| 15 |  | 0 | - | | | |
| 16 |  | 0 | + | | | |
| 17 |  | 0 | - | | | |
| 18 |  | - | + | | | |
| 19 |  | + | + | | | |
| 20 |  | + | + | | | |