

**Supplementary Table 2. Summary of hit compounds selected for secondary screening and mechanistic studies**

<b>Compound</b>	<b>Class</b>	<b>Mechanism of action</b>	<b>Primary screen</b> (fold of control; average ± st dev)	<b>Average effect</b> (n=4 repeats; fold of control)	<b>Supplier</b>
Desalkylflurazepam	Benzodiazepine	GABA <sub>A</sub> R modulation	3.5 ± 1.1	2.1 ± 0.14	University of Helsinki Pharmacy, Finland
Clopentixol dihydrochloride	Antipsychotic	D1R/D2R antagonist	3.7 ± 0.5	2.0 ± 0.21	H. Lundbeck, Denmark
Allobarbital	Barbiturate	GABA <sub>A</sub> R modulation	3.1 ± 1.2	1.9 ± 0.38	University of Helsinki Pharmacy, Finland
Butethal	Barbiturate	GABA <sub>A</sub> R modulation	3.4 ± 0.9	1.9 ± 0.12	University of Helsinki Pharmacy, Finland
Acetylsulfisoxazole	Antibacterial	Sulfonamide	2.6 ± 1.2	1.9 ± 0.70	University of Helsinki Pharmacy, Finland
Selegiline HCl	Antiparkinsonian	MAO inhibition	3.5 ± 1.6	1.8 ± 0.20	Orion Pharma, Finland
Diazepam	Benzodiazepine	GABA <sub>A</sub> R modulation	2.9 ± 0.9	1.7 ± 0.42	Farmos, Finland
Sulfameter	Antibacterial	Sulfonamide	2.1 ± 0.2	1.6 ± 0.71	Orion Pharma, Finland
Dexbrompheniramine maleate	Antiallergic	Histamine H1R antagonist	3.4 ± 0.6	1.5 ± 0.71	University of Helsinki Pharmacy, Finland
Octopamine HCl	Biogenic amine	Adrenergic	2.1 ± 0.6	1.4 ± 0.57	Supro Troponwerke Köln, Germany
Pentobarbital	Barbiturate	GABA <sub>A</sub> R modulation	2.1 ± 0.3	1.4 ± 0.28	Sigma, USA
Tolbutamide	Hypoglycemic	K-channel blocker	2.2 ± 0.6	0.9 ± 0.01	Novo Nordisk, Denmark
Phthalylsulfathiazole	Antibacterial	Sulfonamide	2.2 ± 0.5	0.8 ± 0.02	Arkadia Pharmacy, Finland
Folic acid	Vitamin	One-carbon metabolism	0.7 ± 0.2	0.7 ± 0.04	University of Helsinki Pharmacy, Finland