

**Text S1. List of all the binding sites for which the primary screening at 10  $\mu$ M was performed.**

5HT<sub>1A</sub>, 5HT<sub>1B</sub>, 5HT<sub>1D</sub>, 5HT<sub>1E</sub>, 5HT<sub>2A</sub>, 5HT<sub>2B</sub>, 5HT<sub>2C</sub>, 5HT<sub>3</sub>, 5HT<sub>5A</sub>, 5HT<sub>6</sub> and 5HT<sub>7</sub> serotonergic receptors;  $\alpha_{1A}$ ,  $\alpha_{1B}$ ,  $\alpha_{1D}$ ,  $\alpha_{2A}$ ,  $\alpha_{2B}$ ,  $\alpha_{2C}$ ,  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  adrenergic receptors; D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>, D<sub>4</sub> and D<sub>5</sub> dopaminergic receptors;  $\delta$ ,  $\kappa$  and  $\mu$  opioid receptors; GABA<sub>A</sub> receptor; H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub> and H<sub>4</sub> histaminergic receptors; M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub>, M<sub>4</sub> and M<sub>5</sub> muscarinic receptors; peripheral benzodiazepine receptor (PBR);  $\sigma_1$  and  $\sigma_2$  receptors.

Some compounds were additionally assayed at three nicotinic acetylcholine receptors and hERG ion channels. Activity at neurotransmitter transporters is not part of this analysis and will be reported elsewhere. Data were determined by the PDSP. Full procedures are available online at the PDSP web site <http://pdsp.med.unc.edu/>.