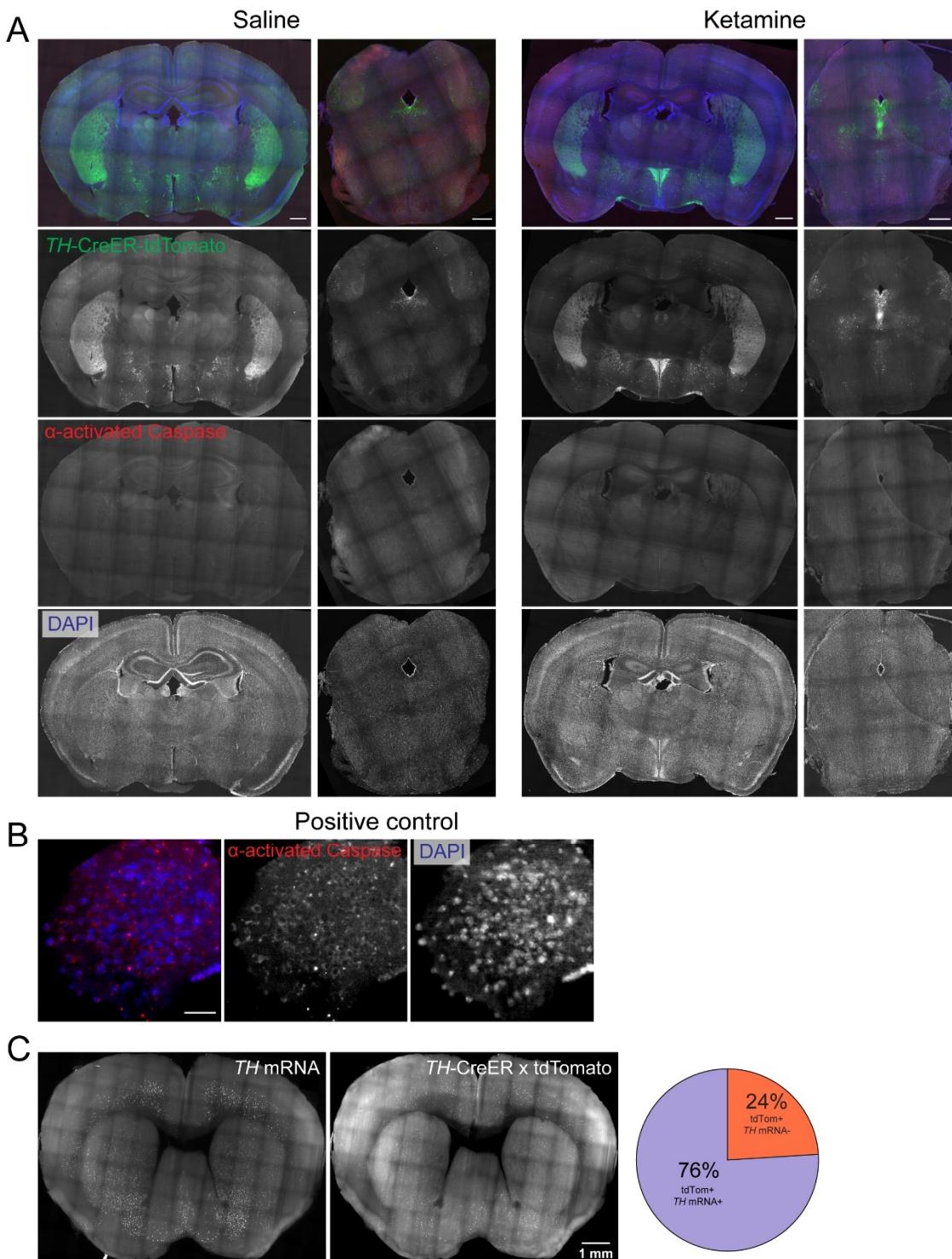


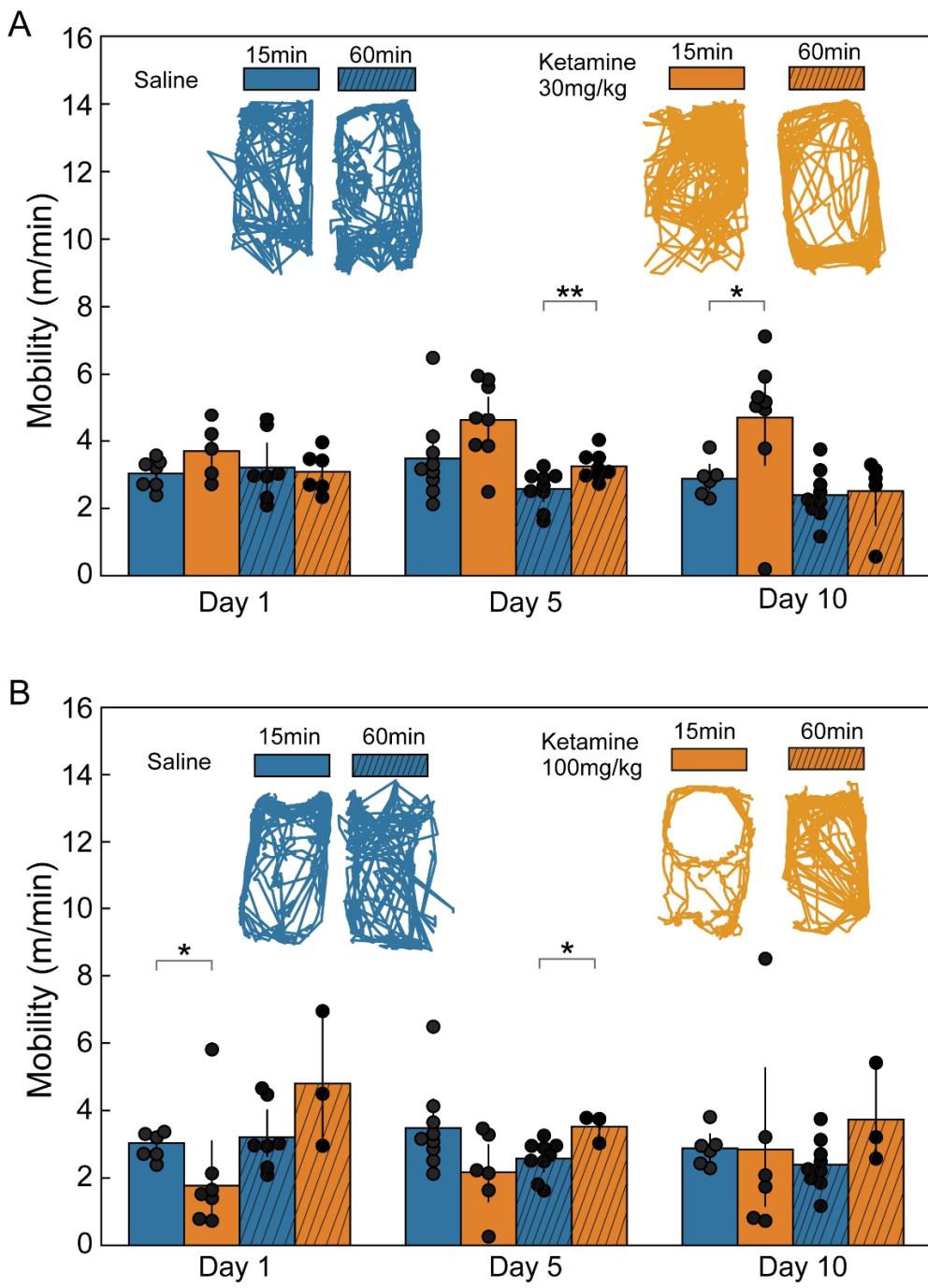
**Supplemental information**

**Whole-brain mapping reveals the divergent  
impact of ketamine on the dopamine system**

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**Figure S1. Activated caspase immunostaining, Related to Figure 2.** (A) Representative images showing activated caspase immunostainings in 10 day ketamine i.p. injected animals. All scale bars are 1 mm. (B) Positive control for activated caspase immunostaining on a stressed neuronal culture. Scale bar represents 50  $\mu$ m. (C) Characterization of *TH-CreER* transgenic line. Co-localization of *TH* mRNA and *TH-CreER x tdTomato* signal is shown and all the non-cortical overlap is quantified in the pie chart. Scale bar represents 1 mm.



**Figure S2. Locomotion behavior quantification, Related to Figure 2.** (A) Quantification of mobility 15 and 60 minutes after daily i.p. injections of 30 mg/kg ketamine. (B) Quantification of mobility 15 and 60 minutes after daily i.p. injections of 100 mg/kg ketamine. Data are represented as mean $\pm$ 1.96SD (95% confidence interval). Statistics was done by using two-sided Mann-Whitney U test of the compared pair of Saline vs. Ketamine treated. \* denotes pvalue < 0.05, \*\* <0.01.

**Table S1. HCR oligo probes used for *TH* mRNA detection, Related to Figure 5.**

<u>Sequences</u>
GAG GAG GGC AGC AAA CGG AAT GAA GCC CTT GGG CTG TGG CGA GGA
GAG GAG GGC AGC AAA CGG AAC CGC TCC TTG CGG GCA TCC TCG ATG
GAG GAG GGC AGC AAA CGG AAT CCC AGG TTC CGC GGA GGC TAC CGC
GAG GAG GGC AGC AAA CGG AAT TGA GAA CAG CAT TTC CAT CCC TCT
GAG GAG GGC AGC AAA CGG AAC AAA GCC CGA GAC AGT GAG GAG GGT
GAG GAG GGC AGC AAA CGG AAT CGA AGC GCA CAA AGT ACT CCA GGT
GAG GAG GGC AGC AAA CGG AAA GAC ACC CGA CGC ACA GAA CTG AGG
GAG GAG GGC AGC AAA CGG AAC TTT CCT TGG GAA CCA GGG AAC CTT
GAG GAG GGC AGC AAA CGG AAA GGT CAG GGT CAA ACT TGG TGA CCA
GAG GAG GGC AGC AAA CGG AAC TTC CGG CGC TGG CGA TAC GCC TGG
GAG GAG GGC AGC AAA CGG AAA GCG TGG CGT ATA CCT CCT TCC AGG
GAG GAG GGC AGC AAA CGG AAC TGG AAA GCC TCC AGG TGT TCC CGG
GAG GAG GGC AGC AAA CGG AAC CTC CAG CTG TGG AAT GCT GTC CTC
GAG GAG GGC AGC AAA CGG AAG CCA CGG GTC GCA GCT GGA AGC CAG
GAG GAG GGC AGC AAA CGG AAA AAC ACA CGG AAG GCC AGA CTG GCC
GAG GAG GGC AGC AAA CGG AAG CTC GGG TGA GTG CAT AGG TGA GGA
GAG GAG GGC AGC AAA CGG AAG TGC GGT CAG CCA ACA TGG GTA CGT
GAG GAG GGC AGC AAA CGG AAA TCT GAA GCC CCC AGA GAT GCA AGT
GAG GAG GGC AGC AAA CGG AAG CCC AAA CTC CAC AGT GAA CCA GTA
GAG GAG GGC AGC AAA CGG AAG ACA GCA GCC CTG CAC CGT AAG
TGG TAT CCT GCT CTG AGA CGG CTC TTA GAA GAG TCT TCC TTT ACG
AGC CGC TGC TGC AGC TGC TGC CTA GAA GAG TCT TCC TTT ACG
CCT CGA ATA CCA CAG CCT CCA ATG GTA GAA GAG TCT TCC TTT ACG
TTT GTA CCC CTC AAG GAG AAG AGC ATA GAA GAG TCT TCC TTT ACG
TTT GGC TTC AAA TGT CTC AAA CAC TTA GAA GAG TCT TCC TTT ACG
AGG GCA GCC AGG TCG CCA CTG GGC ATA GAA GAG TCT TCC TTT ACG
GTC CTC TCT GGC ACT GCG CAC ATC GTA GAA GAG TCT TCC TTT ACG
GGT GGT GAC ACT TAT CCA ACT CTG ATA GAA GAG TCT TCC TTT ACG
TCA GAG AAG CCC GGA TGG TCC AGG TTA GAA GAG TCT TCC TTT ACG
GTA TTG GAA GGC AAT CTC TGC AAT CTA GAA GAG TCT TCC TTT ACG
CAG GCA TGG GTA GCA TAG AGG CCC TTA GAA GAG TCT TCC TTT ACG
TCG GTA GCC ACA GTA CCG TTC CAG ATA GAA GAG TCT TCC TTT ACG
TCC GTT CCT TCA AGA AGT GAG ACA CTA GAA GAG TCT TCC TTT ACG

AGA AAA TCA CGG GCA GAC AGT AGA CTA GAA GAG TCT TCC TTT ACG
GGC ATG ACG GAT GTA CTG TGT GCA CTA GAA GAG TCT TCC TTT ACG
GTC CCA GCA GCT CGT GGC AGC AGT CTA GAA GAG TCT TCC TTT ACG
CCA ATG TCC TGG GAG AAC TGG GCA ATA GAA GAG TCT TCC TTT ACG
CAC CGT GGA GAG TTT TTC AAT TTC TTA GAA GAG TCT TCC TTT ACG
CCT TCA GCT CCC CAT TCT GTT TAC ATA GAA GAG TCT TCC TTT ACG
GAC AGG GAG TGC AGG AGC TCT CCA TTA GAA GAG TCT TCC TTT ACG