Figure S3. Gadd45b knockdown prevents dopamine-driven DNA methylation changes. a, Illustration of experimental design. Rat striatal cultures were transduced with Gadd45b shRNA (or scrambled control) at DIV4. Cultured neurons were treated with the DRD1 receptor agonist SKF-38393 (1 μM) for 2 hr at DIV11 prior to DNA extraction and genome-wide DNA methylation profiling with reduced representation bisulfite sequencing (RRBS). b, RRBS tracks from representative gene locus (Drd2) and promoter-spanning CpG island. Only CpGs with > 120 reads are shown. c, Genome-wide distribution of CpG methylation values from ~1.86 million CpGs reveals bimodal distribution of CpG methylation in both scrambled and Gadd45b shRNA groups. d-e, DNA methylation profiles across gene bodies, first exon, and CpG islands reveals similar CpG methylation landscapes in scrambled and Gadd45b shRNA groups. f, Heatmaps showing CpG methylation change (SKF % – Veh %) for all 1930 CpGs modulated by SKF-38393 in the scrambled shRNA condition (termed differentially methylated CpGs (dmCpGs; defined as p < 0.01, > 20% change)). g, Representative SKF-38393 hypermethylated dmCpG at the Ptgir gene locus. h, Gadd45b shRNA prevents SKF-38393-induced increases in CpG methylation. i, Representative SKF-38393 hypomethylated dmCpG at the Utrn gene locus. j, Gadd45b shRNA prevents decreases in CpG methylation following DRD1 agonist treatment. ****p < 0.0001 for indicated comparisons.