

## **Materials and Methods for supplementary figures**

**Cells.** Human hepatoma cell line HepG2 cells were obtained from Japanese Collection of Research Bioresources Cell Bank (Osaka, Japan). Human embryonic kidney 293T (HEK293T) cells and human neuroblastoma SH-SY5Y cells were obtained from the American Type Culture Collection (Manassas, VA, USA).

**Chemicals.** Notch4 (Cleaved-Val1432) antibody was obtained from Enogene (New York, NY, USA). Antibodies against Hes1 (D6P2U) and presenilin 2 were obtained from Cell Signaling Technology, Inc. (Beverly, MA, USA). c-Myc (9E10) antibody was obtained from Sigma-Aldrich (St. Louis, MO, USA). The pCS2 Notch1  $\Delta$  EMV-6MT (plasmid 41737) was obtained from Addgene (Cambridge, MA, USA).

**Plasmid transfection into HEK293T cells.** HEK293T cells were plated at  $3 \times 10^5$  cells/well in six-well collagen-coated culture plates, growing overnight, and transfected with Notch1  $\Delta$ EMV plasmid in the presence of 2.4  $\mu$ g of the indicated DNA combinations with Lipofectamine2000 (Invitrogen Corp., Carlsbad, CA, USA) according to the manufacturer's instructions.

**siRNA transfection into HepG2 or SH-SY5Y cells.** HepG2 cells were seeded at  $5 \times 10^5$  cells/well in six-well culture plates and cultured for 1 day before each experiment. SH-SY5Y cells were seeded at  $1 \times 10^6$  cells/well in six-well culture plates and cultured for 2 day before each experiment. Transfection of siRNA against human Notch1 into HepG2 and SH-SY5Y cells was done using Lipofectamine RNAiMAX (Invitrogen Corp.) and METAFECTENE<sup>®</sup> Pro (Biontex, Germany), respectively. After incubation for 24 h, cells were washed with medium and used for experiments.

**Annexin-V and propidium iodide staining.** Culture medium containing floating cells were aspirated and reserved. After trypsinization, cells were suspended in Dulbecco's modified Eagle's medium/Nutrient Mixture F-12 medium, and the culture medium was returned. The numbers of live, necrotic, and apoptotic cells were determined by the Tali<sup>®</sup> Image-Based Cytometer using a Tali<sup>®</sup> Apoptosis Kit-Annexin

V Alexa Fluor<sup>®</sup> 488 and Propidium Iodide (Life Technology Corp., Carlsbad, CA, USA) according to the manufacturer's instructions.

**Nucleosome assay.** After preparing the cytoplasmic fraction, histone-associated DNA fragments (mono- and oligonucleosomes) were assayed with a Cell Death Detection ELISA<sup>PLUS</sup> (Roche Applied Science, Penzberg, Germany) according to the manufacturer's instructions.