

**Figure S4.** Substantial reduction of free SUMO2/3 in different organs of  $Sumo2^{+/-}$  mice compared with  $Sumo3^{-/-}$  mice. Total proteins were extracted from brains, hearts, and kidneys of wild-type and mutant 8–10 months-old mice. Blots (left) were probed with anti-SUMO2/3 antibody. GAPDH served as loading control. Bar graphs (right) show relative amount of free SUMO2/3 in  $Sumo2^{+/-}$  and  $Sumo3^{-/-}$  mice compared with their control littermates corrected for GAPDH. Data are presented as means  $\pm$  SD (n=4 for  $Sumo2^{+/+}$  and  $Sumo2^{+/-}$  mice; n=3 for  $Sumo3^{+/+}$  mice, and n=5 for  $Sumo3^{-/-}$  mice: \*P < 0.05, \*\*P < 0.01, \*\*P < 0.001).