



**Figure S1.** No correlation between weight and Rotarod test performance in 12-month-old mice (n as indicated in **Figure 2**). **a)** Between all mice in B16 background and weight ( $r^2 = 0.087$ ,  $p = 0.114$ ). **b)** Between all mice in B16/129sv background and weight ( $r^2 = 0.041$ ,  $p = 0.321$ ).