



Figure S1. Linkage analysis

A positive-proven C57BL/6N carrier animal (symbol outlined in blue with gray inside) was mated to an FVB/N mouse (symbol outlined in orange). The resulting N1 positive-proven carrier animal (outlined half blue, half orange with gray inside) was mated to a positive-proven C57BL/6N carrier animal. N2 offspring animals had 75% C57BL/6N and 25% FVB/N genome. Phenotypically apparent mice (blue and orange filled symbols) were homozygous and carried a 28 Mb long region resulting from C57BL/6N genome only. The region was analysed in silico and contained the mutated *dystonin* gene (blue area in the depicted chromosome). Carrier animals (outlined half blue, half orange with gray inside) were heterozygous.