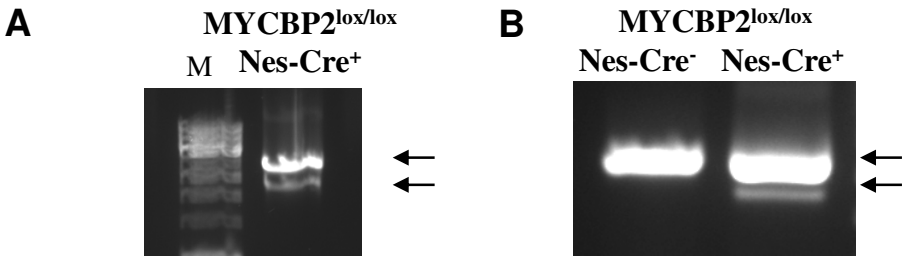
Supplementary data 1



Confirmatory PCR for the genetic deletion of exon 11

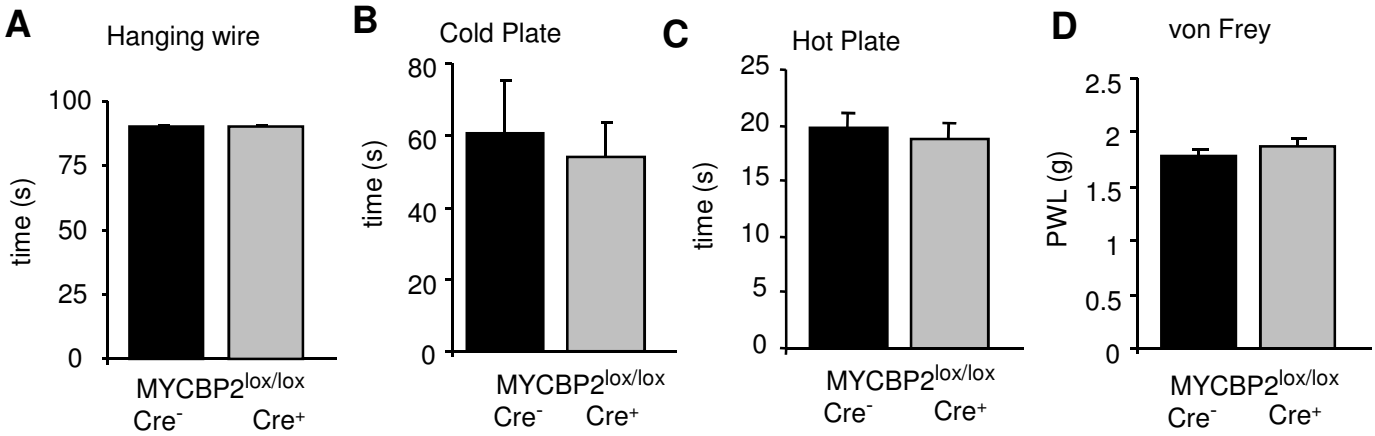
Panel A: PCR of exon 11 using genomic DNA of whole embryos from Nestin-Cre-positive MYCBP2$^{lox/lox}$ mice. Arrows indicate the wild type (upper band) and the deleted (lower band) alleles **Panel B:** RT-PCR of exon 11 using mRNA of whole embryos from Nestin-Cre-negative and Nestin-Cre-positive MYCBP2$^{lox/lox}$ mice. Arrows indicate the amplification products of the wild type (upper band) and the mutated (lower band) mRNA.

Supplementary data 2

Sequence of the mouse MYCBP2 region comprising exon 10-13.

RT-PCR products representing the wild type and the deleted mRNA of Cre positive MYCBP2$^{lox/lox}$ mice were sequenced. Nucleotide and amino acid numbers of the wild type sequence (numbering is according to the mouse sequence NM_207215) are shown in black, the corresponding knockout sequence is shown in grey. Deletion of exon 11 shifts the open reading frame (red) and results in the translation of 23 new amino acids before a stop codon is reached (red). As a result, at the level of MYCBP2 protein, a deletion of the whole RHD1 domain, together with the RHD2 and the C terminal of the protein is accomplished.

Supplementary data 3



Motor coordination and basal pain thresholds in Cre-positive MYCBP2$^{lox/lox}$ mice.

Cre-negative (black bars) and Cre-positive MYCBP2$^{lox/lox}$ mice (grey bars) were tested for their motor abilities using the hanging wire (**panel A**) test. Thermal thresholds were determined using the cold plate test (**panel B**), and the hot plate test **(panel C)**. Mechanical thresholds were determined using von Frey hairs (**panel D**). Data are shown as average of 7-18 animals ± S.E.M..