

**Supplementary Figure 1** General characterization of the  $mabp1^{-/-}$  phenotype. (A) Compared to wild-type mice (left panel), mabp1-deficient mice possess ruffled up fur and hunched posture (middle panel), and partial paralysis of hind limbs (right panel). (B) Growth curves showing body weights [g] of female (left) and male (right)  $mabp1^{+/-}$  (closed triangles),  $mabp1^{+/-}$  (open rectangles) and  $mabp1^{-/-}$  (closed circles) mice measured between 3 and 15 weeks of age (n=8 for each genotype and gender).