**A**

MW (kDa) wild type *Bicd1<sup>gt/gt</sup>*

![Mass spectrometry images](Image)

**B**

Heat map of MAP2 and synaptophysin expression in wild type and *Bicd1<sup>gt/gt</sup>* neurons.

**C**

Bar chart showing synaptic density (a.u.) for wild type and *Bicd1<sup>gt/gt</sup>* neurons. n.s. indicates no significant difference.

**D**

Images of wild type and *Bicd1<sup>gt/gt</sup>* neuron morphology showing no significant difference in number of branches.

**E**

Bar chart showing total outgrowth (a.u.) with no significant difference (n.s.) between wild type and *Bicd1<sup>gt/gt</sup>* neurons.

**F**

Bar chart showing maximum process length (a.u.) with no significant difference (n.s.) between wild type and *Bicd1<sup>gt/gt</sup>* neurons.

**G**

Bar chart showing number of branches with no significant difference (n.s.) between wild type and *Bicd1<sup>gt/gt</sup>* neurons.

Supplementary Figure 2 Terenzio et al.
Figure S2. Synaptogenesis and neurite outgrowth are not perturbed in Bicd1<sup>gt/gt</sup> motor neurons

(A) Western blot analysis of BICD1 and BICD2 protein levels in wild type and Bicd1<sup>gt/gt</sup> motor neurons.

(B) Representative images of wild type and Bicd1<sup>gt/gt</sup> motor neurons immunostained for microtubule associated protein 2 (MAP2) to identify neurons and synaptophysin, to visualise synapses. Scale bar = 20 μm.

(C) Quantification of the mean number of synaptophysin-positive synapses per neuron determined from three independent experiments (n=3, t test, mean ± s.e.m., n.s., not significant).

(D) Representative images of wild type and Bicd1<sup>gt/gt</sup> motor neurons two days after plating and immunostained for βIII tubulin. Scale bar = 50 μm.

(E-G) Quantification of total neurite outgrowth, maximum process length and number of neurite branches in DIV2 wild type and Bicd1<sup>gt/gt</sup> motor neurons immunostained for βIII tubulin. No significant differences in these parameters were found between wild type and Bicd1<sup>gt/gt</sup> motor neurons (t test, mean ± s.e.m., n.s., not significant, >90 cells quantified per condition).