



**Figure S1** *In vitro* mRNA splicing assay using *Ank1* minigene. Wild type and mutant *Ank1<sup>hema6</sup>* minigenes from exon 11 to exon 16 were prepared and transfected into HEK293 cells. RNA from cells transfected with the wild-type minigene contained the expected normally sized and spliced product, while RT-PCR products derived from RNA of cells transfected with *Ank1<sup>hema6</sup>* minigene yielded two mutant splice isoforms, in addition to wild type product.