Title: Supplementary data 1: **Description:** List of significantly differentially expressed genes in P635L HET, P635L HOM, R636Q HET and R636Q HOM relative to WT

Title: Supplementary data 2:

Description: List of significantly differentially spliced events in P635L HET, P635L HOM, R636Q HET and R636Q HOM relative to WT

Title: Supplementary data 3: **Description:** List of significantly differentially expressed genes in different cell types based on snRNA-seq including candidate genes for analysis in Fig. 4e-g

Title: Supplementary data 4: Description: Mapping statistics of NGS experiments including WGS coverage

Title: Supplementary data 5: **Description:** Tissue-specific variants found by WGS Supplementary data 6: Sequences of oligonucleotides used in this study