

Supplementary Data 1 Multi-omic and phenotypic data from X-linked mutants

- a)** Sample information from E12.5 F1 embryos
- b)** Sample information from adult (6 weeks) body map
- c)** ATAC-seq analysis of male and female organs
- d)** Oligo information and Sanger sequencing for genotype verification of KO strains
- e)** Differential gene expression analysis in placenta
- f)** Allele-specific expression analysis in the placenta
- g)** Allele-specific single-cell expression analysis in the adult spleen
- h)** Differential gene expression analysis for the TKO bodymap
- i)** Significant differentially expressed genes in the TKO and Firre-Dxz4 bodymap
- j)** Differentially expressed genes in the TKO bodymap
- k)** Top 100 gene sets from gene set enrichment analysis of the TKO bodymap
- l)** Differentially expressed genes in the spleen of mutant strains
- m)** Shared differentially expressed genes in the spleen
- n)** Gene set enrichment analysis results in the spleen
- o-q)** German Mouse Clinic TKO phenotype results
- r-s)** Expression tables (TPM)