Fig.S1 Kaplan-Meier survival curves of urothelial cancer patients according to TIMTs. (**a**) overall survival; (**b**) disease free survival.
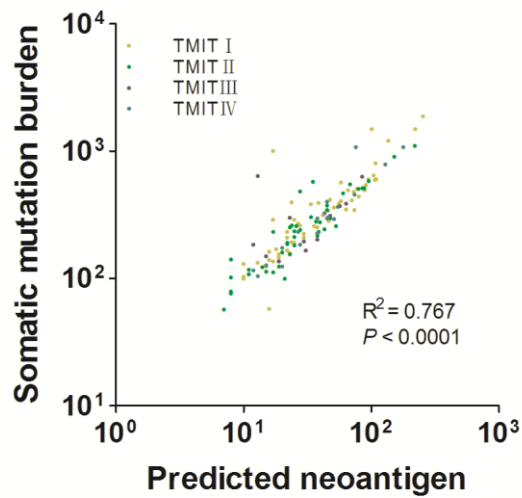

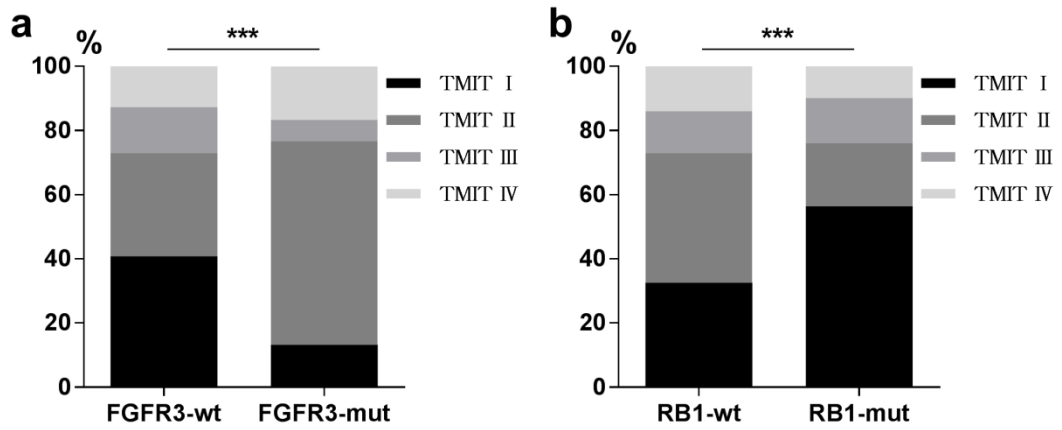**Fig.S2** Significant correlation between somatic mutation burden and predicted neoantigen.

Fig.S3 (**a**) Comparation of the proportion of TMIT I according to FGFR3 mutation status. (**b**) Comparation of the proportion of TMIT I according to RB1 mutation status.
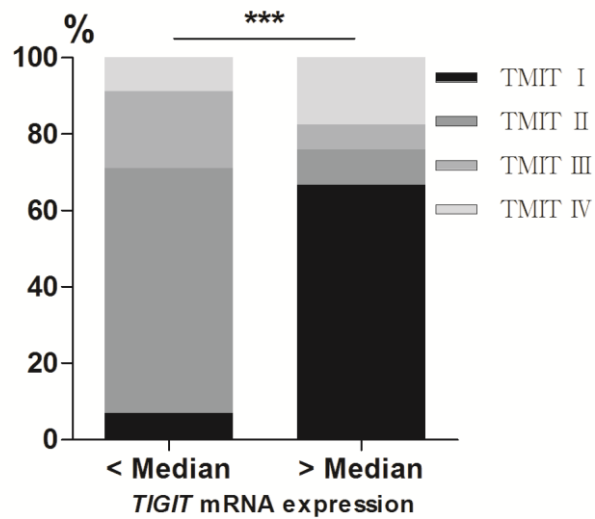

Fig.S4 Comparation of the proportion of TMIT I according to TIGIT mRNA expression.