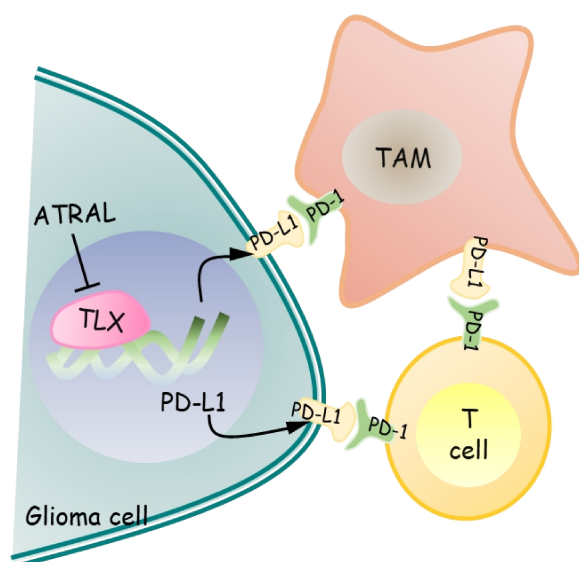


Orphan nuclear receptor TLX promotes immunosuppression via its transcriptional activation of PD-L1 in glioma

Graphical Abstract



Authors

Jiayi Zhou, Xiaojuan Pei, Yingui Yang, Zhu Wang, Weijie Gao, Ran Ye, Xiantong Zhang, Jiangang Liu, Zhuohao Liu, Xinzhi Yang, Jingli Tao, Chunshan Gu, Wei Hu, Franky Leung Chan, Xin Li, Jie Mao, Dinglan Wu

Correspondence

wudinglan123@smu.edu.cn

In Brief

This study shows, for the first time, that TLX contributes to glioma malignancy and immunosuppression through transcriptional activation of PD-L1 ligands that bind to PD-1 expressed on both TILs and TAMs. Thus, targeting the druggable TLX may have a potential therapeutic significance in glioma immune therapy.

Highlights

- TLX positively correlates PD-L1 expression in glioma.
- TLX is associated with a suppressive immune microenvironment in glioma.
- TLX transcriptionally promotes PD-L1 expression.
- Suppression of TLX inhibits *in vivo* growth of glioma and rescues antitumoral immune response.