

Androgen suppresses PML protein expression in prostate cancer CWR22R Cells

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摘要

Abstract

The ability of PML to modulate key suppressive pathways in tumor cells suggests that PML may act as a tumor suppressor. The detailed mechanism of how PML functions in prostate cancer progression, however, remains unknown. Here we demonstrate that in the presence of androgen, PML protein expression can be suppressed in CWR22R prostate cancer cells. Further studies reveal that PML can selectively suppress AR transactivation and PML protein expression positively correlates with increased p21 protein level and enhances p53 transcription ability in CWR22R cells. We also found that PML strongly inhibits CWR22R cell colony formation, while PML siRNA enhances AR activity and CWR22R cell colony formation. Together our results suggest that PML may suppress prostate cancer cell growth by inhibiting AR transactivation and/or enhancing p53 activity.