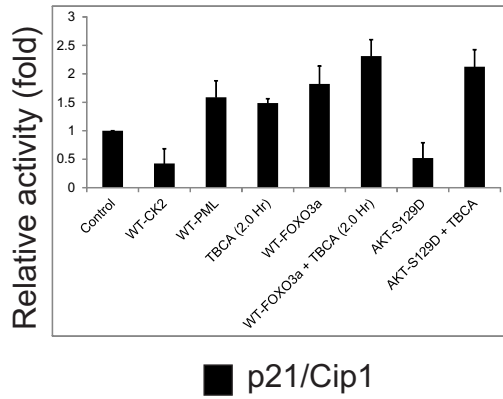
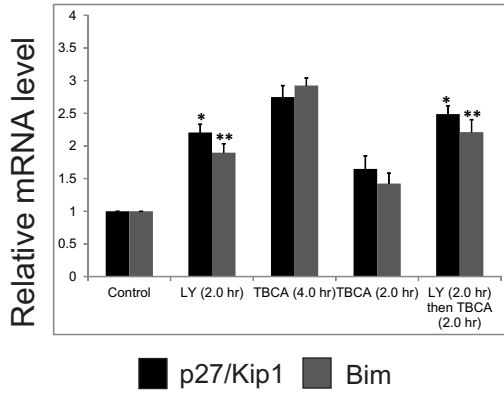


Supplementary Information S-5: Protein kinase CK2 regulates p21/Cip1, p27/Kip1 and Bim expression, while knockdown either PML or PHLPP2 reduces the gene expression of both p27/Kip1 and Bim. VEGF expression is negatively controlled by FOXO3a.

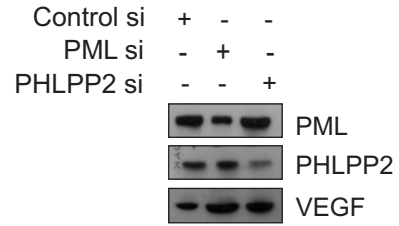
S-5a



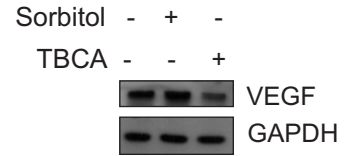
S-5b



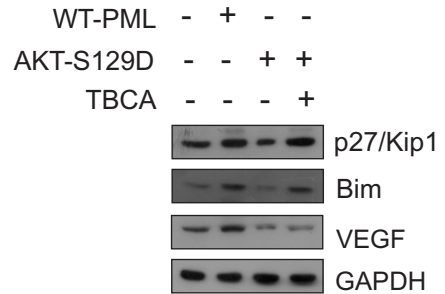
S-5c



S-5d



S-5e



1 **Figure Legend – S5**

2 Protein kinase CK2 regulates key FOXO3a targets. (**S-5a**) Luciferase Activity assay to
3 demonstrate the promoter activity of p21/Cip1 gene. PC3 cells were transfected with the
4 2.0 uG of WWP-p21-prom-Luc construct along with *Renilla* reporter construct, serving
5 as transfection control. After 24 hr, the transfected cells were either transfected (3.0 ug
6 in all cases) or treated or both (as indicated). The control cells were transfected with
7 empty pGZ-GFP vector along with DMSO to serve as a cumulative control for all the
8 experimental variables. Luciferase Activity assay was performed from the cell lysates
9 after 36 hr post-transfection (TBCA for the indicated duration post transfection in all the
10 cases otherwise mentioned) following described protocol (refer to materials and
11 methods for detail). The figure represents relative fold change in Luciferase readings,
12 normalized against *Renilla* reporter activity. (**S-5b**) qRT-PCR analysis of p27/Kip1 and
13 Bim mRNA was performed from total RNA extracted from PC3 cells with the described
14 treatments. Total RNA was prepared from cells after indicated durations of drug
15 treatments (TBCA and LY294002 were used at the aforementioned dose). Figure
16 represents normalized relative mRNA fold change of p27/Kip1 and Bim. 18srRNA was
17 used as endogenous control in all cases. Bars represents mean (\pm) SD of three
18 independent biological repeats, with the respective level of significances ($*p = 0.027$, $**p$
19 $= 0.023$). (**S-5c**) Protein levels of VEGF upon knock down of PML and PHLPP2 (by
20 transfection of either PML siRNA or PHLPP2 siRNA respectively). Figure represents, IB
21 performed from 50 ug WCL from PC3 cells 72 hrs post- transfection. (**S-5d**) Figure
22 depicting the level of VEGF protein expression upon activation and inhibition of CK2 (by
23 *d* - Sorbitol and TBCA treatments respectively). Figure represents, IB performed using

24 PC3 WCL cells treated with either *d* - Sorbitol or TBCA. (**S-5e**) Figure depicting the
25 protein expression pattern of key FOXO3a targets upon exogenous over expression of
26 WT-PML, AKT S129D alone and in conjunction with TBCA treatment using PC3 WCL.