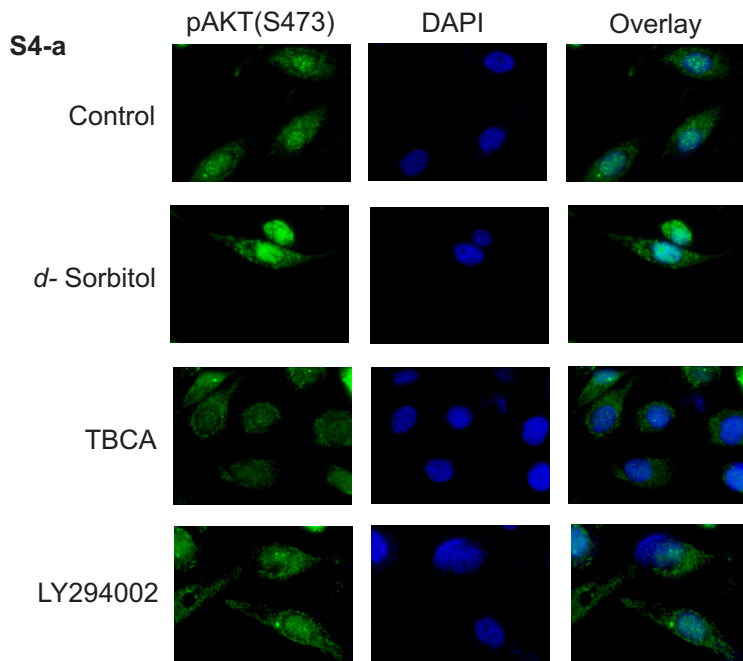
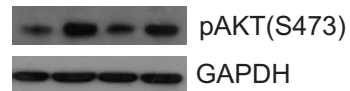


**Supplementary Information S-4:** Immuno-fluorescence imaging depicting, the elevation in the level of active AKT and inactivated FOXO3a within the nucleus upon activation of CK2, the phenomenon being antagonized by inhibition of CK2 and the AKT-S129D mutant is unresponsive towards status of CK2 activity.

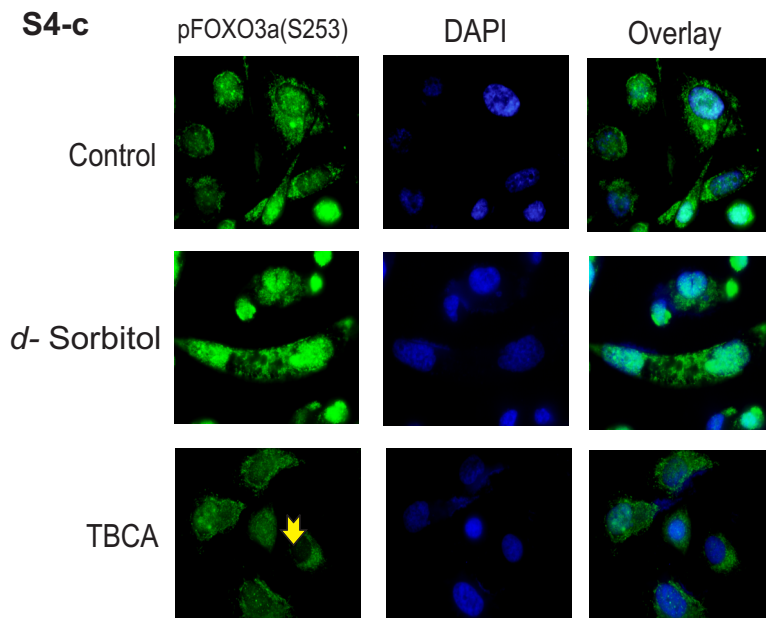
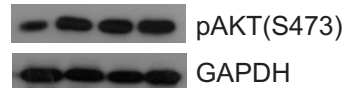


**S4-b**

WT-AKT1	-	+	+	+
Sorbitol	-	-	-	+
TBCA	-	-	+	-



AKT1-S129D	-	+	+	+
Sorbitol	-	-	-	+
TBCA	-	-	+	-



## 1 **Figure Legend - S4**

2 Activation of CK2 elevates the level of active AKT and inactivated FOXO3a within the  
3 nucleus, the phenomenon being antagonized through inhibition of CK2. **(S4-a)** Activated  
4 CK2 intensifies the nuclear level of activated AKT (here pAKTS473). PC3 cells were  
5 treated with either *d* - Sorbitol or TBCA. Cells were then appropriately processed for  
6 immunofluorescence imaging by probing with anti-pAKTS473 primary antibody, followed  
7 by incubation with AF488 (green) conjugated secondary antibody. Cells treated  
8 LY294002 served as positive control for AKT inactivation. Cells of the control set were  
9 duly treated with DMSO-water. DAPI was used as counter stain for the nuclei. All the  
10 images were taken at 600X magnification. **(S-4b)** AKT-S129D is unresponsive towards  
11 both CK2 activation and/or inhibition. HEK293 cells were overexpressed with either WT-  
12 AKT1 or AKT1-S129D constructs followed by treatment with *d* - Sorbitol or TBCA.  
13 Lysates were prepared after 36 hr post transfection and analyzed through IB by probing  
14 with anti pAKTS473 antibody. Control cells were transfected with appropriate empty  
15 vector in combination with DMSO-water to substitute for the vehicle for drugs. **(S-4c)**  
16 Activation of CK2 elevates the level of inactivated FOXO3a within the nucleus, while the  
17 level diminishes upon inhibition of CK2. PC3 cells were treated with either *d* - Sorbitol or  
18 TBCA. Cells were then appropriately processed for immunofluorescence imaging by  
19 probing with anti-pFOXO3aS253 primary antibody, followed by incubation with AF488  
20 (green) conjugated secondary antibody. DAPI was used as counter stain for the nuclei.  
21 All the images were taken at 600X OI magnification.