

Figure S1

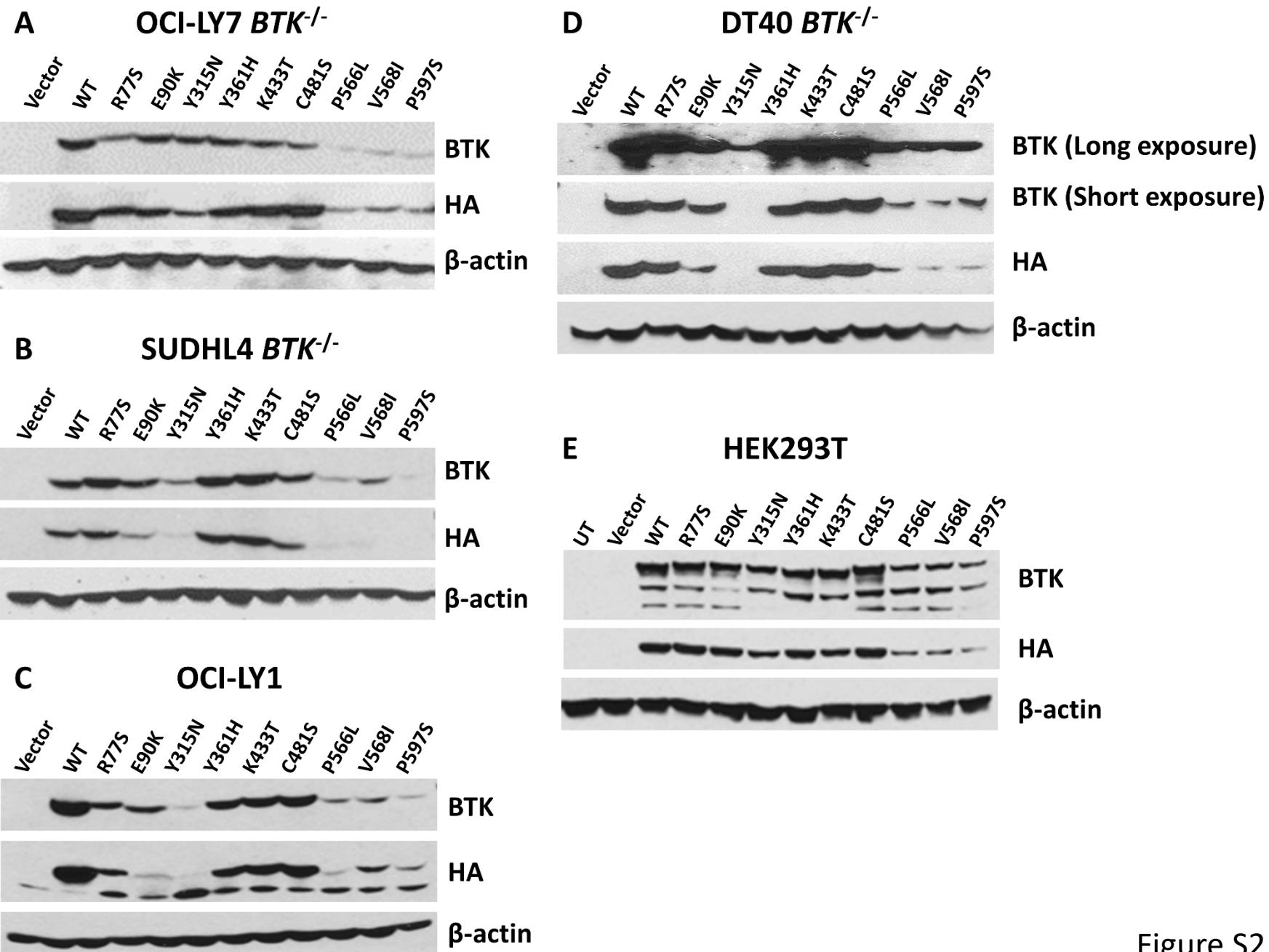


Figure S2

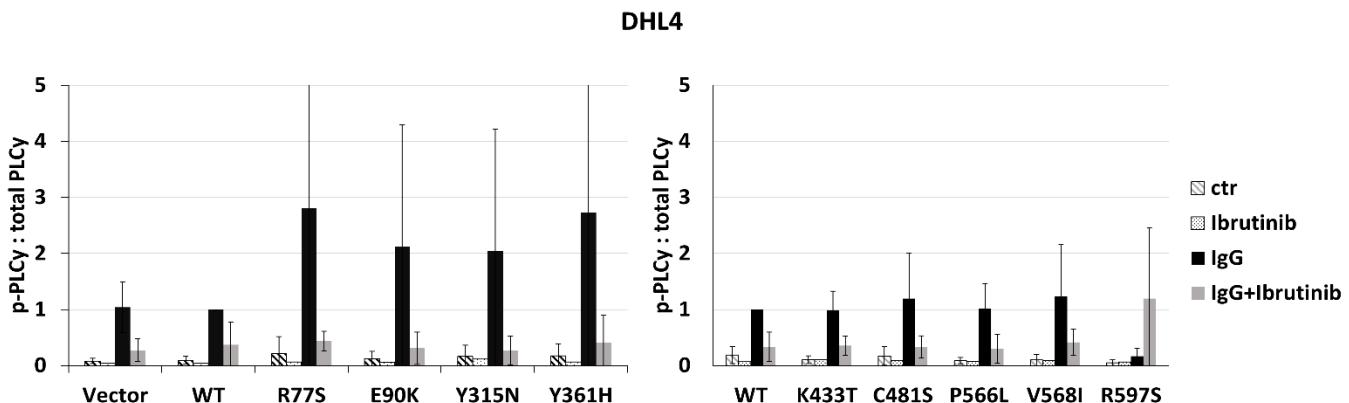
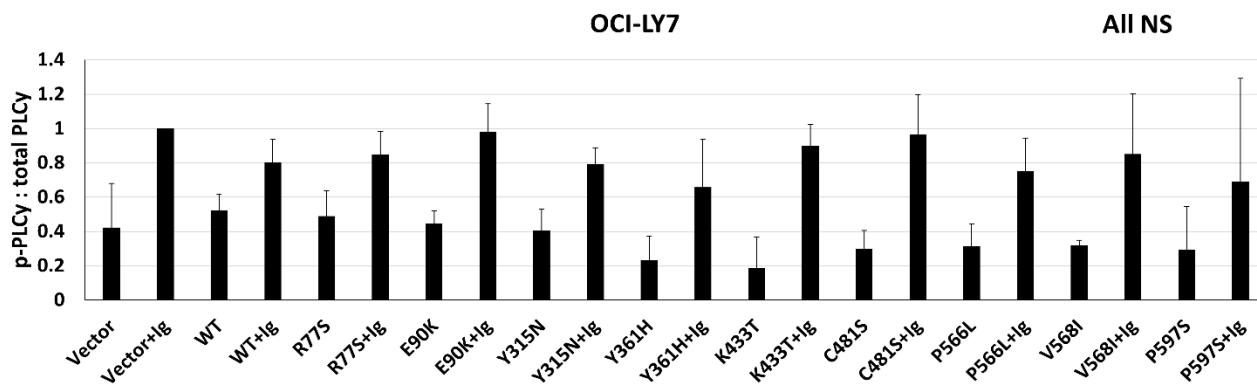
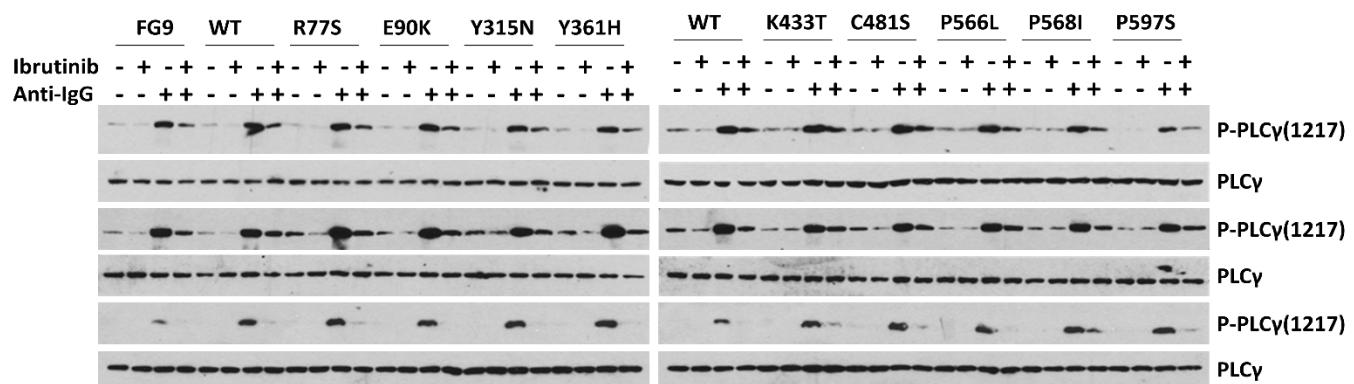
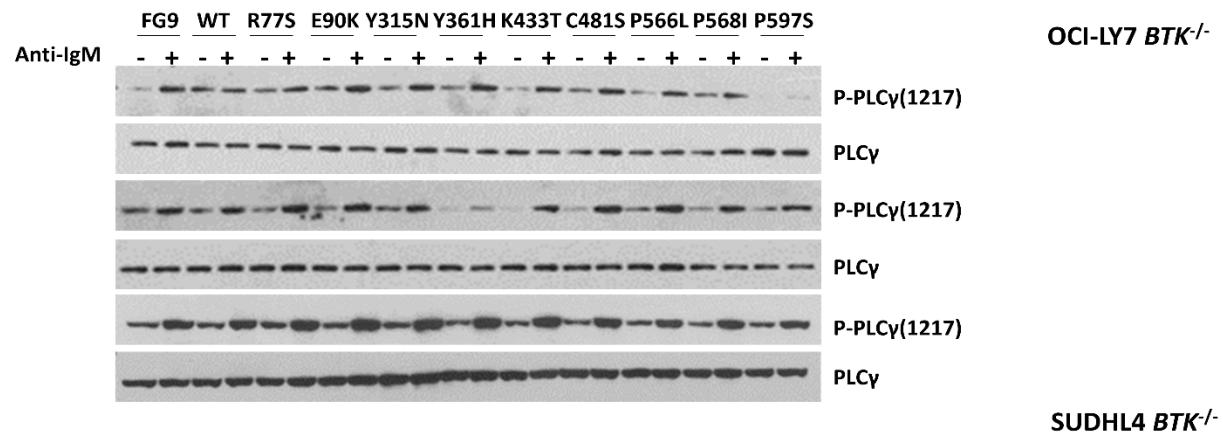
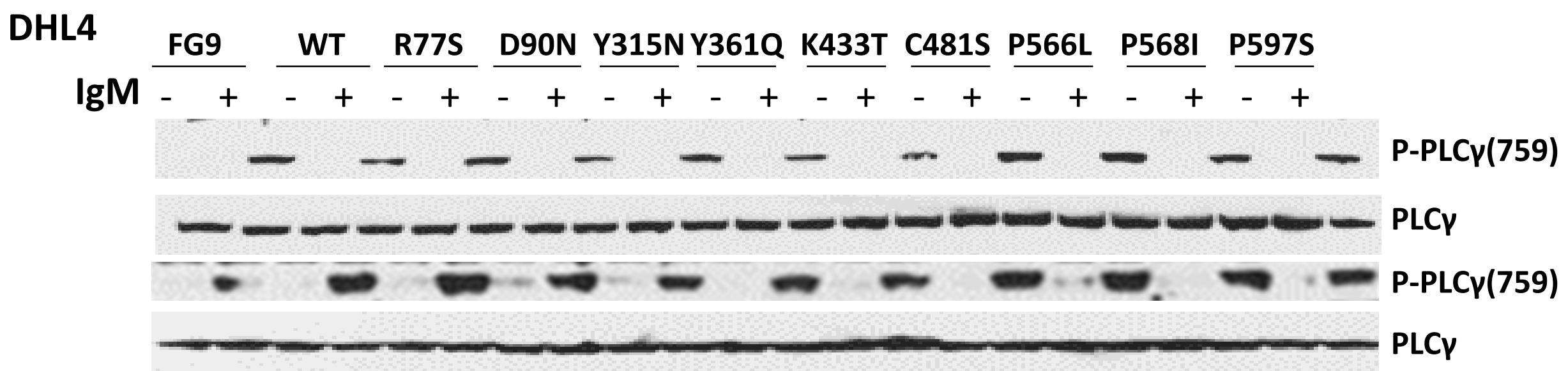
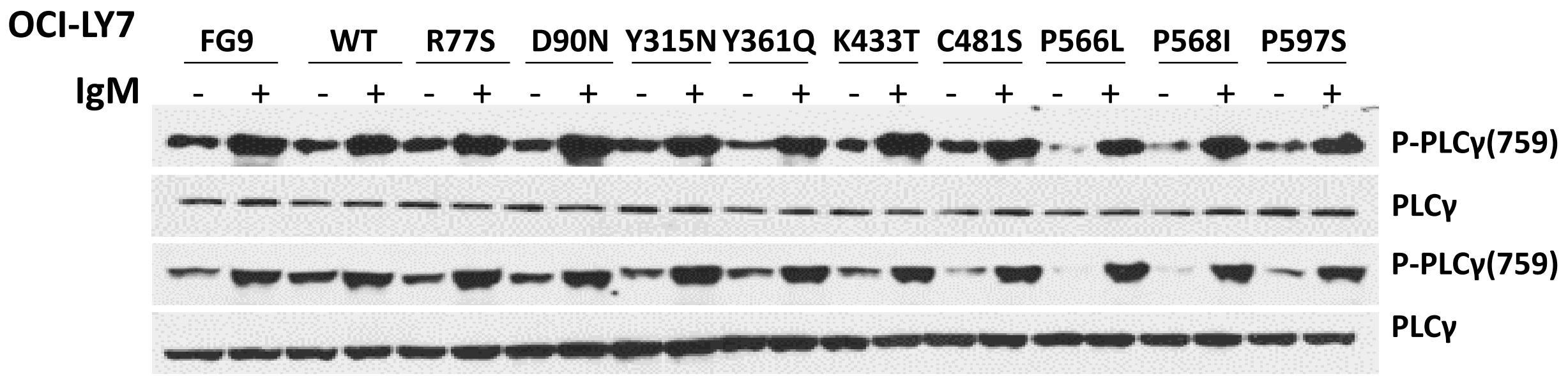


Figure S3



P-PLC $\gamma$ (759)

All NS

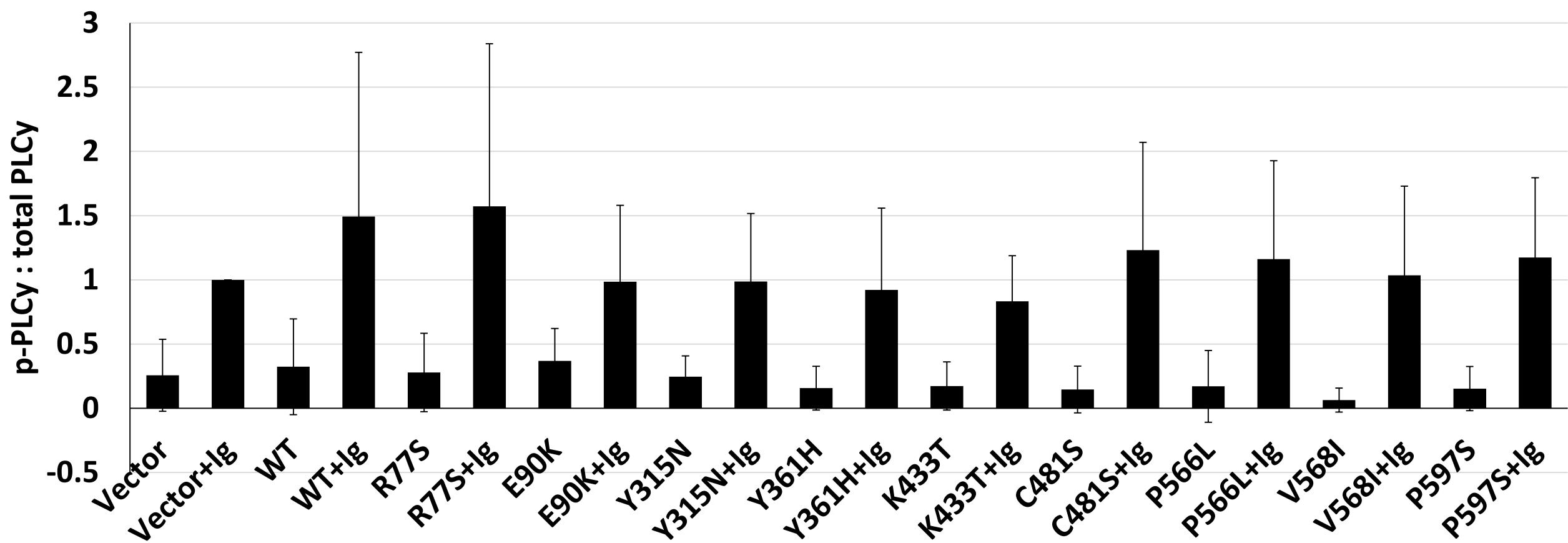


Figure S4

## OCI-LY7 *BTK*<sup>-/-</sup> *BLK*<sup>-/-</sup>

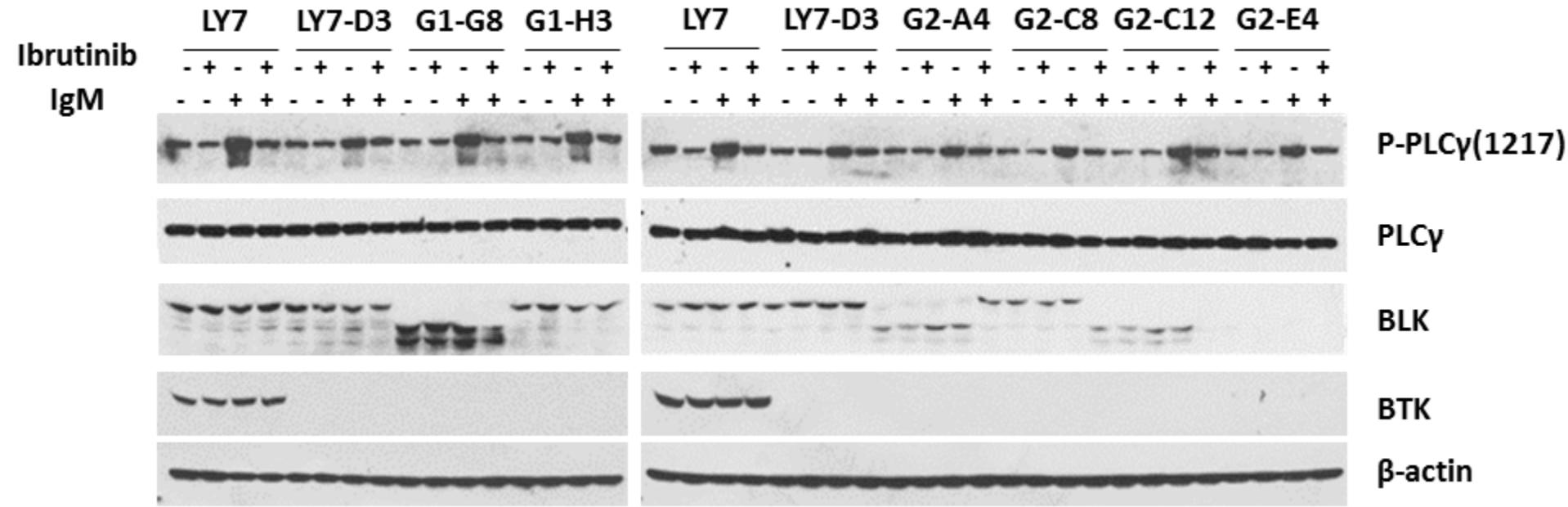
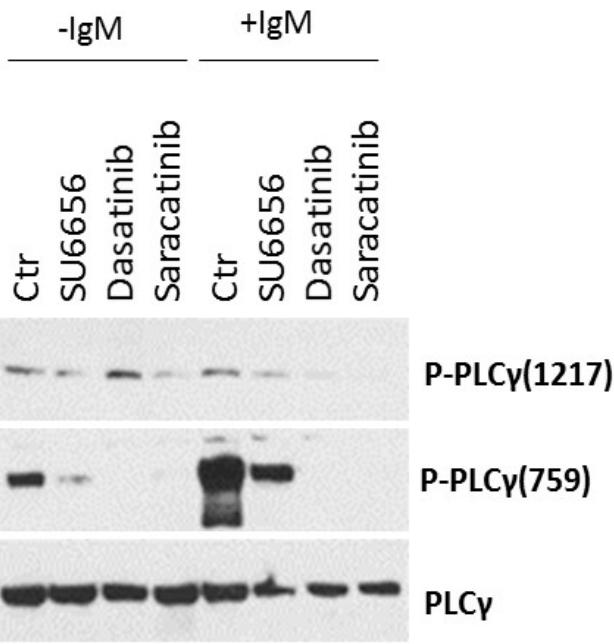
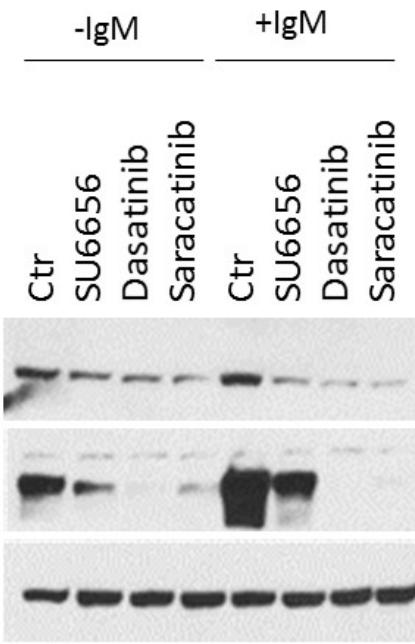


Figure S5

## OCI-LY7 BTK<sup>-/-</sup> BLK<sup>-/-</sup>



## SUDHL4 BTK<sup>-/-</sup> BLK<sup>-/-</sup>

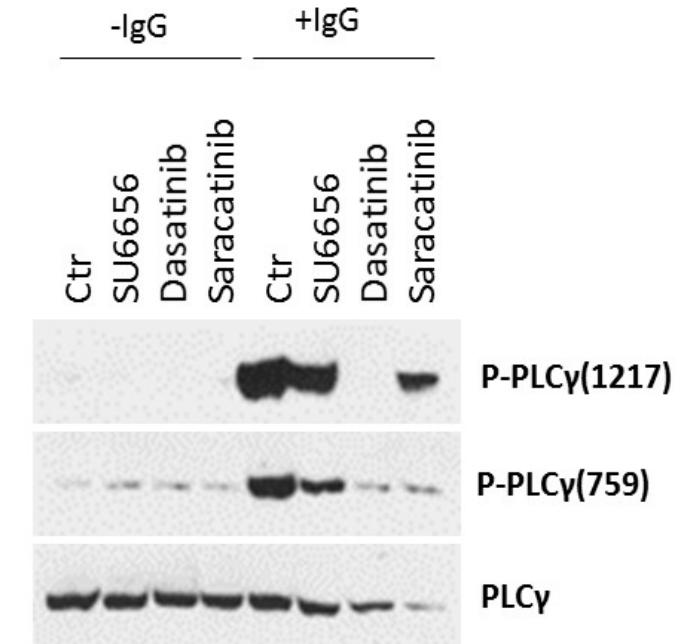
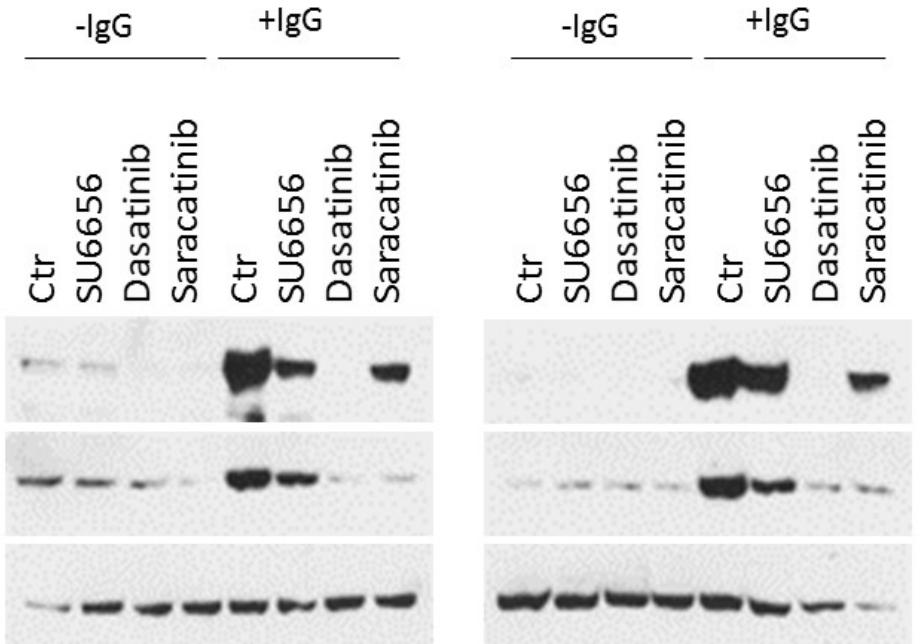
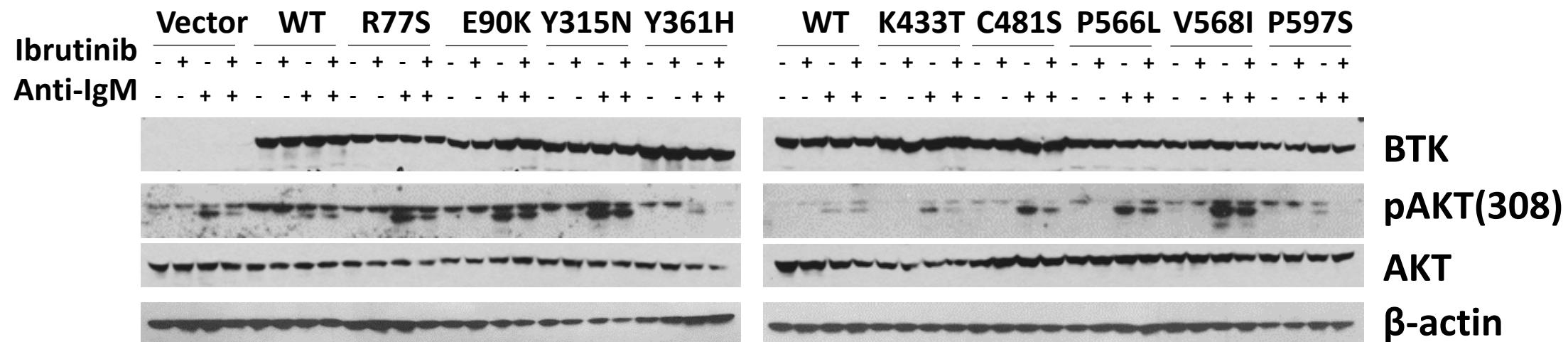


Figure S6

# A OCI-LY7 *BTK*<sup>-/-</sup>



# B SUDHL4 *BTK*<sup>-/-</sup>

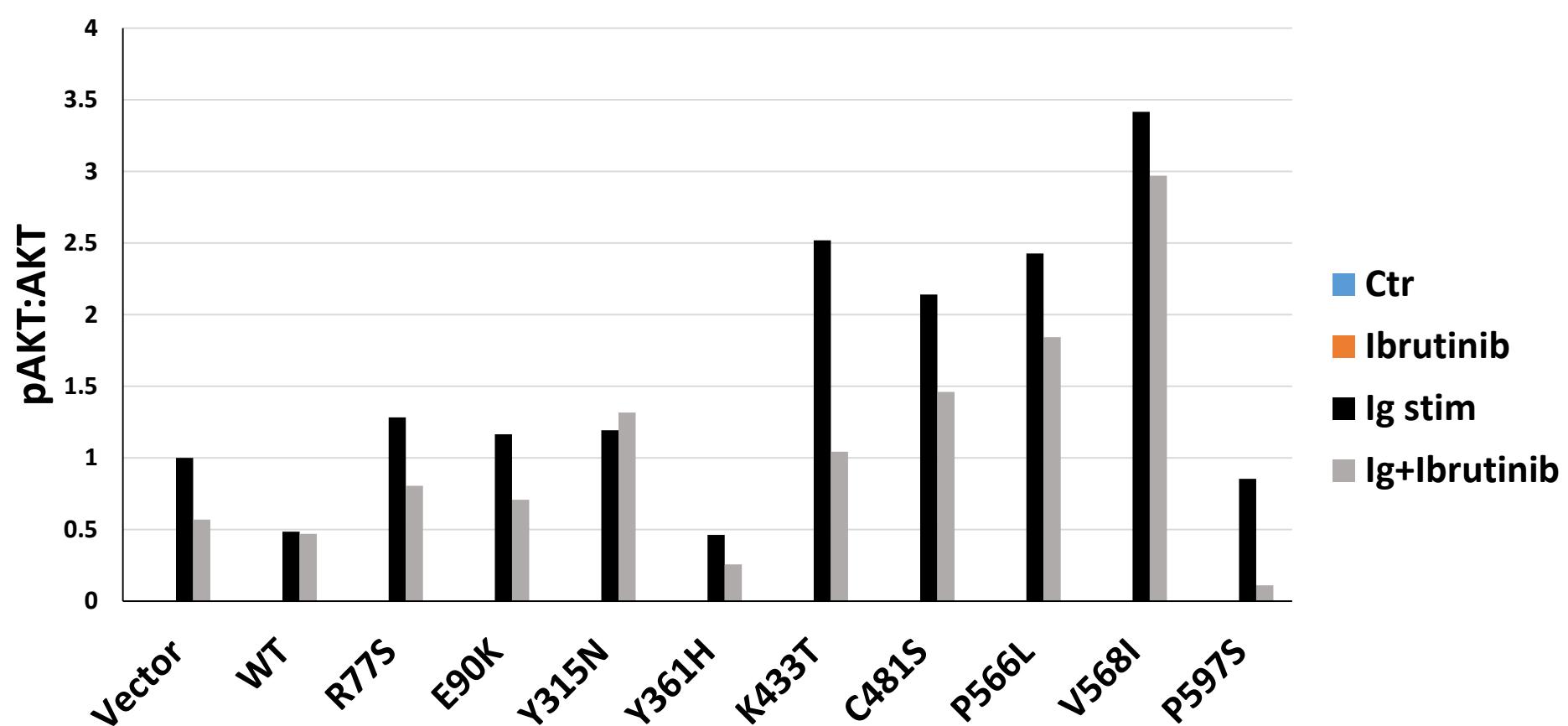
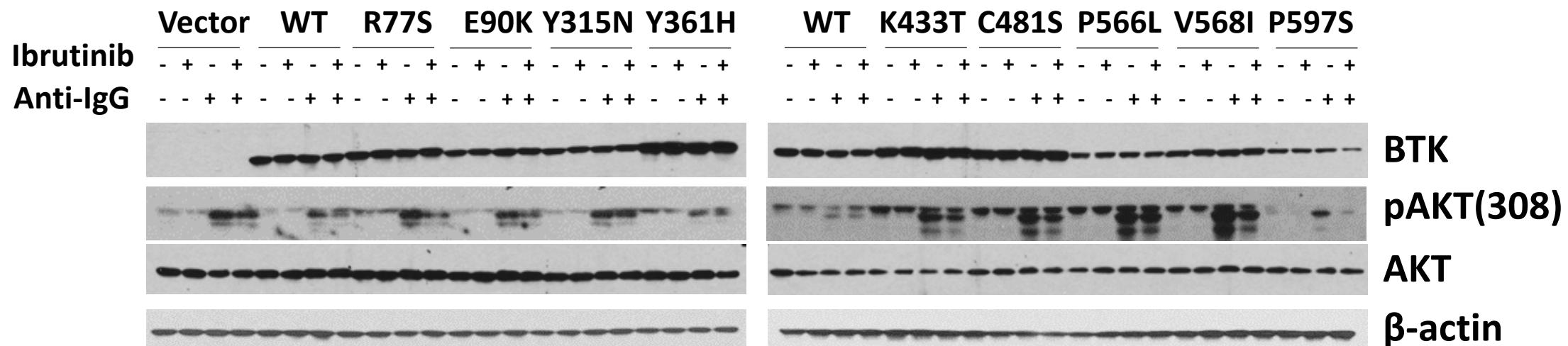
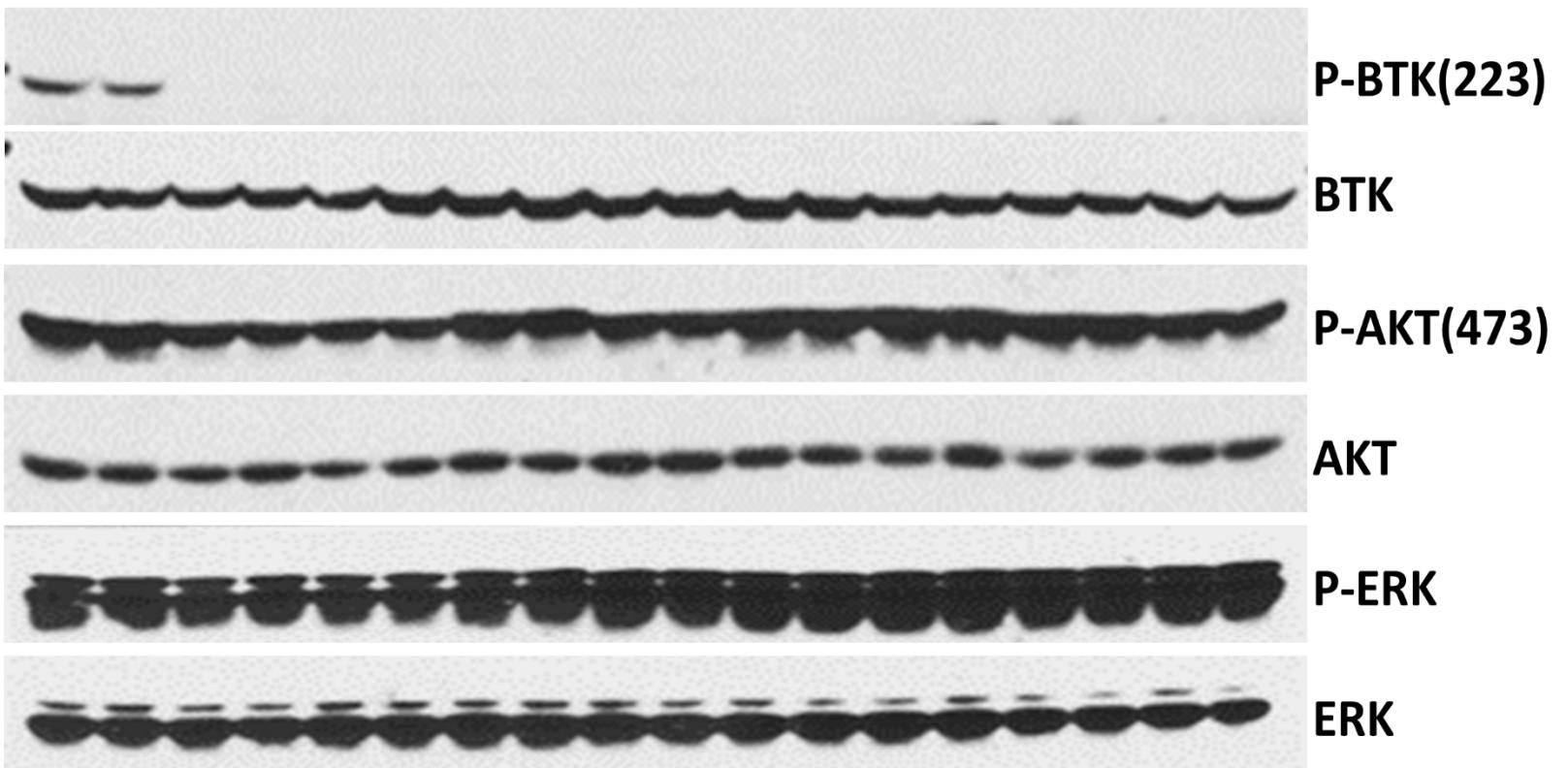


Figure S7

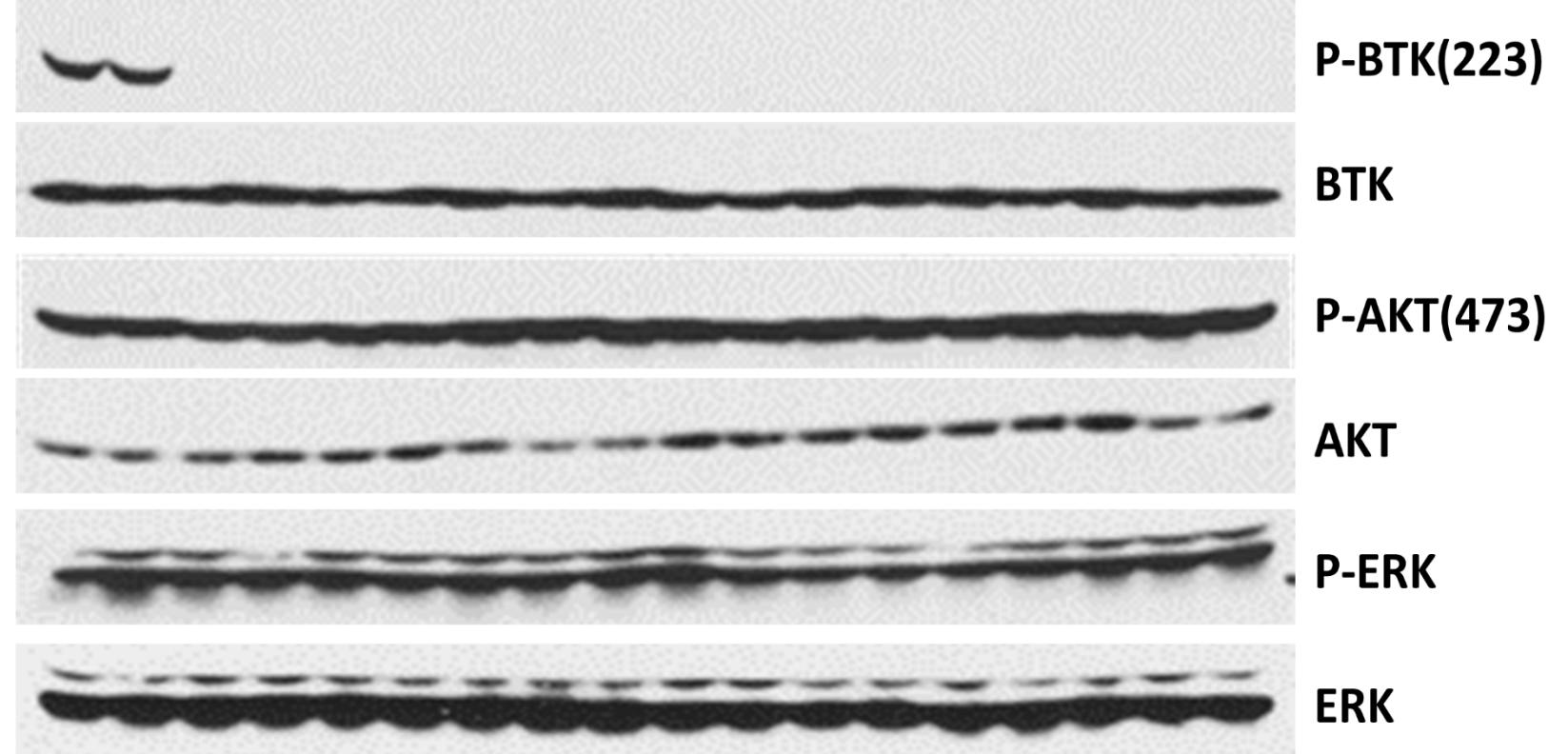
### OCI-LY7

Ctr	1hr	2hr	4hr	6hr	1hr	2hr	4hr	6hr	
+	+	+	+	+	+	+	+	+	Anti-IgM
-	-	+	+	+	-	-	-	-	Ibrutinib (1μM)
-	-	-	-	-	+	+	+	+	Acalabrutinib (1μM)



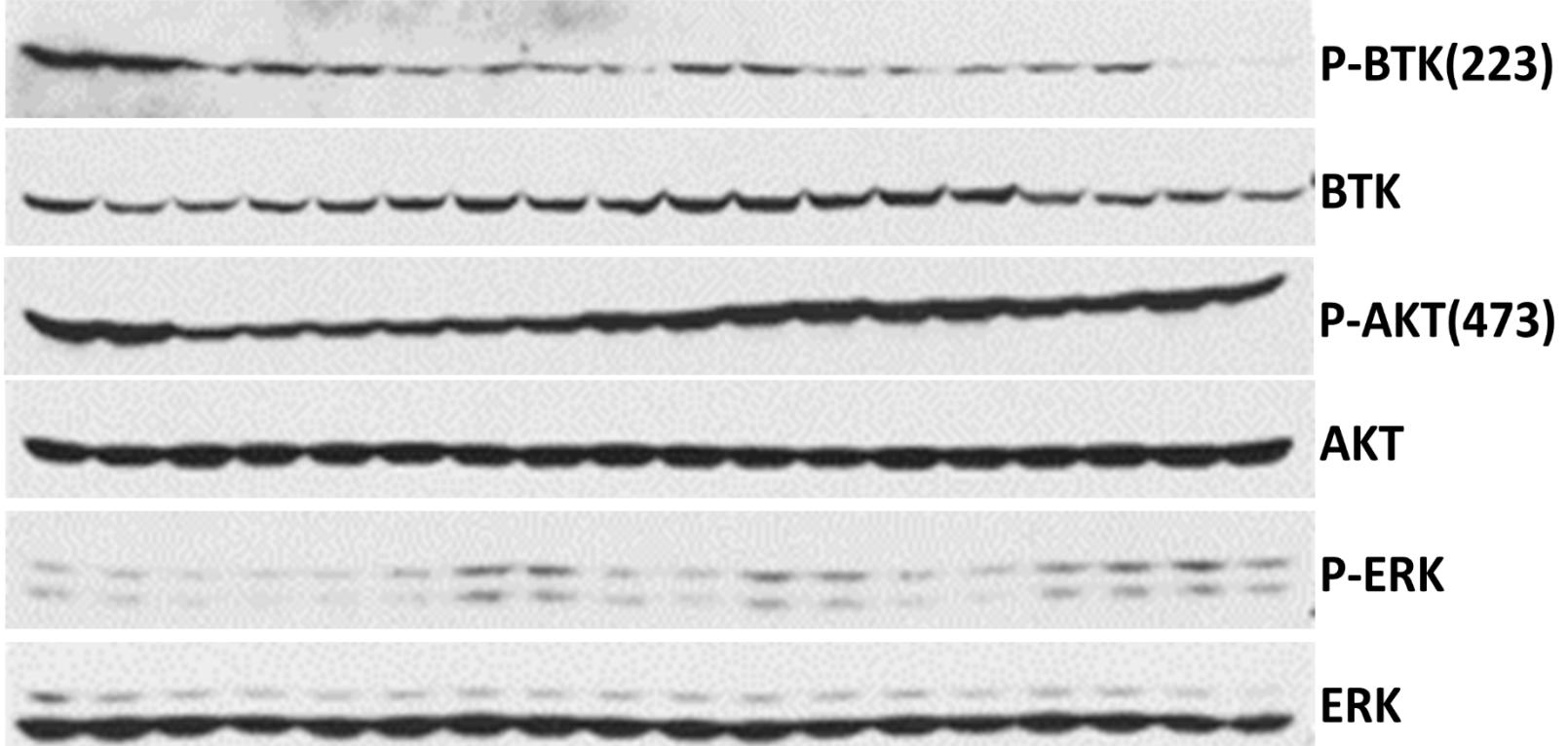
### SUDHL4

Ctr	1hr	2hr	4hr	6hr	1hr	2hr	4hr	6hr	
+	+	+	+	+	+	+	+	+	Anti-IgG
-	-	+	+	+	-	-	-	-	Ibrutinib (1μM)
-	-	-	-	-	-	-	-	-	Acalabrutinib (1μM)



### HBL1

Ctr	1hr	2hr	4hr	6hr	1hr	2hr	4hr	6hr	
+	+	+	+	+	+	+	+	+	Anti-IgM
-	-	+	+	+	+	-	-	-	Ibrutinib (1μM)
-	-	-	-	-	+	+	+	+	Acalabrutinib (1μM)



### TMD8

Ctr	1hr	2hr	4hr	6hr	1hr	2hr	4hr	6hr	
+	+	+	+	+	+	+	+	+	Anti-IgM
-	-	+	+	+	-	-	-	-	Ibrutinib (1μM)
-	-	-	-	-	-	-	-	-	Acalabrutinib (1μM)

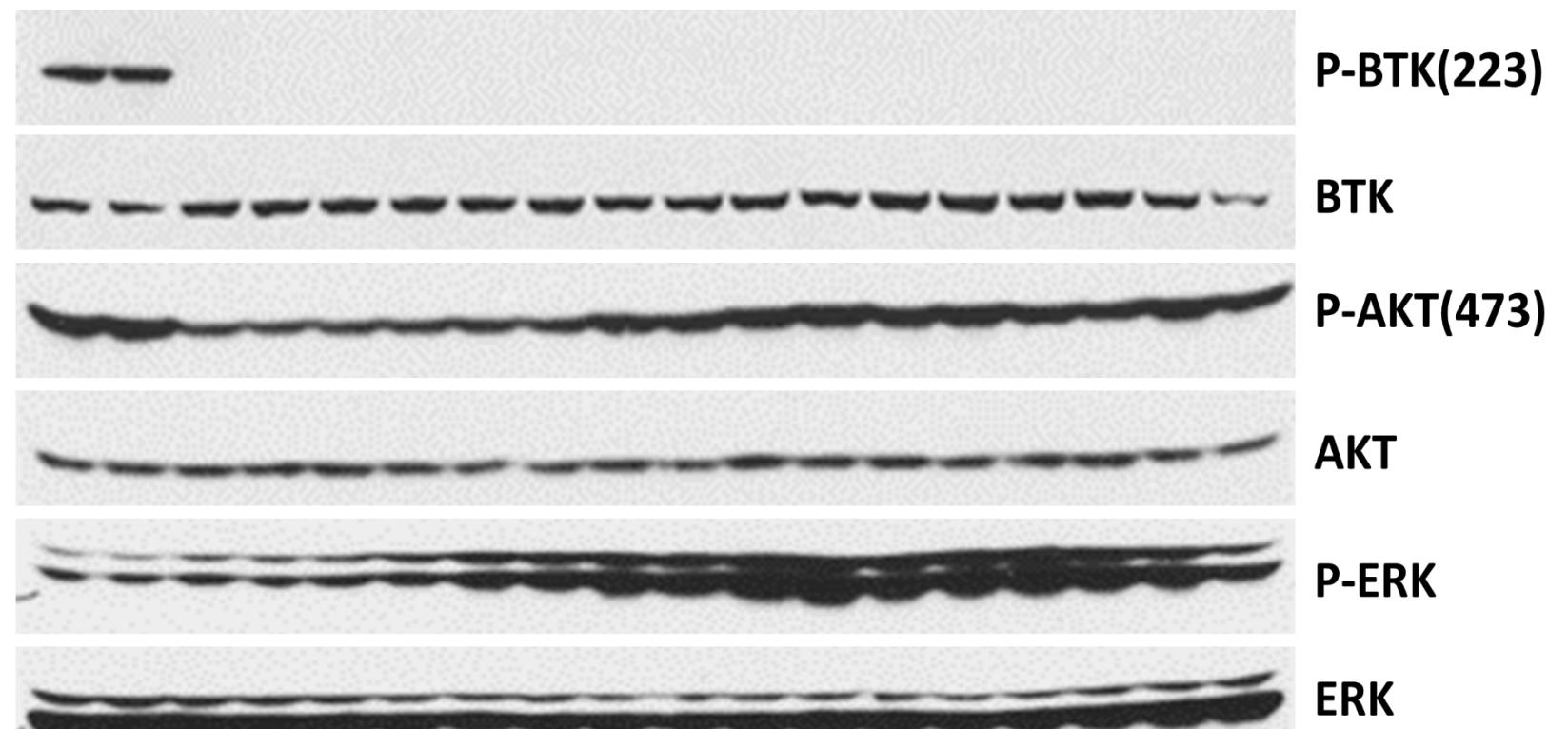
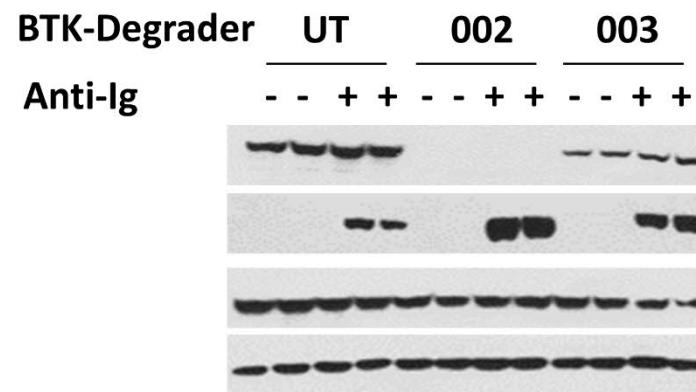
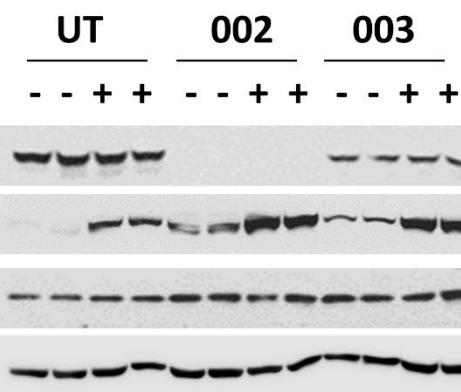
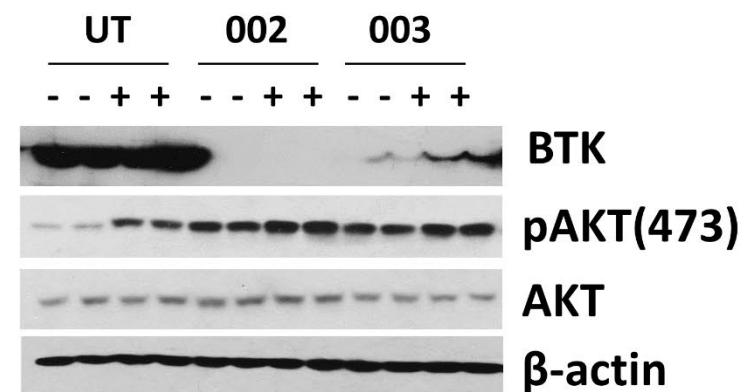
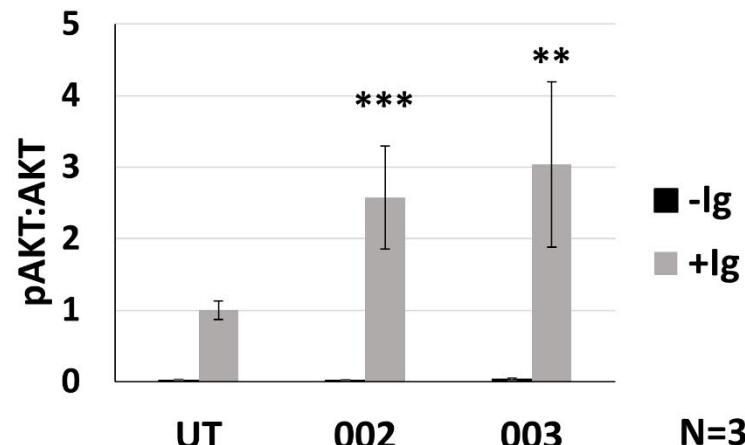
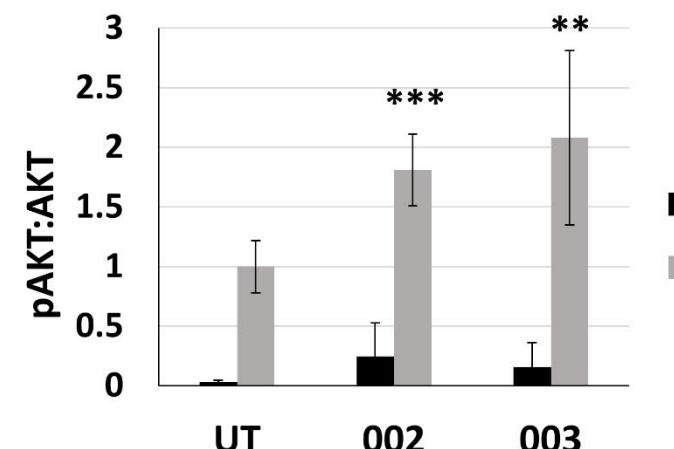
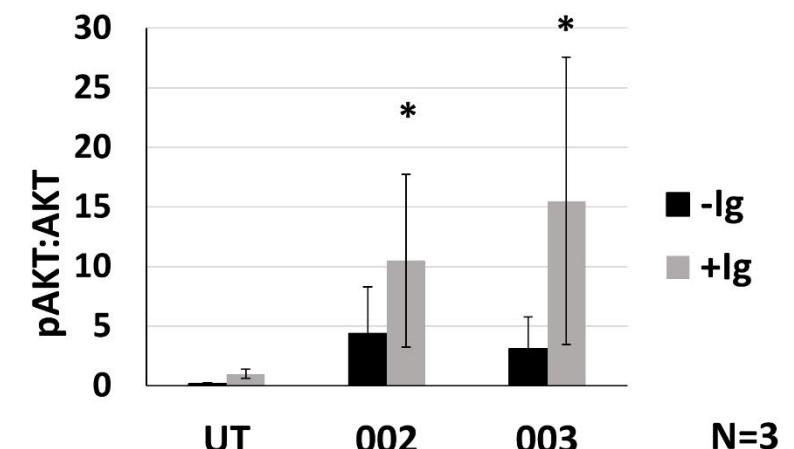


Figure S8

**A****OCI-LY7****C****SUDHL4****E****OCI-LY1****B****D****F****Figure S9**

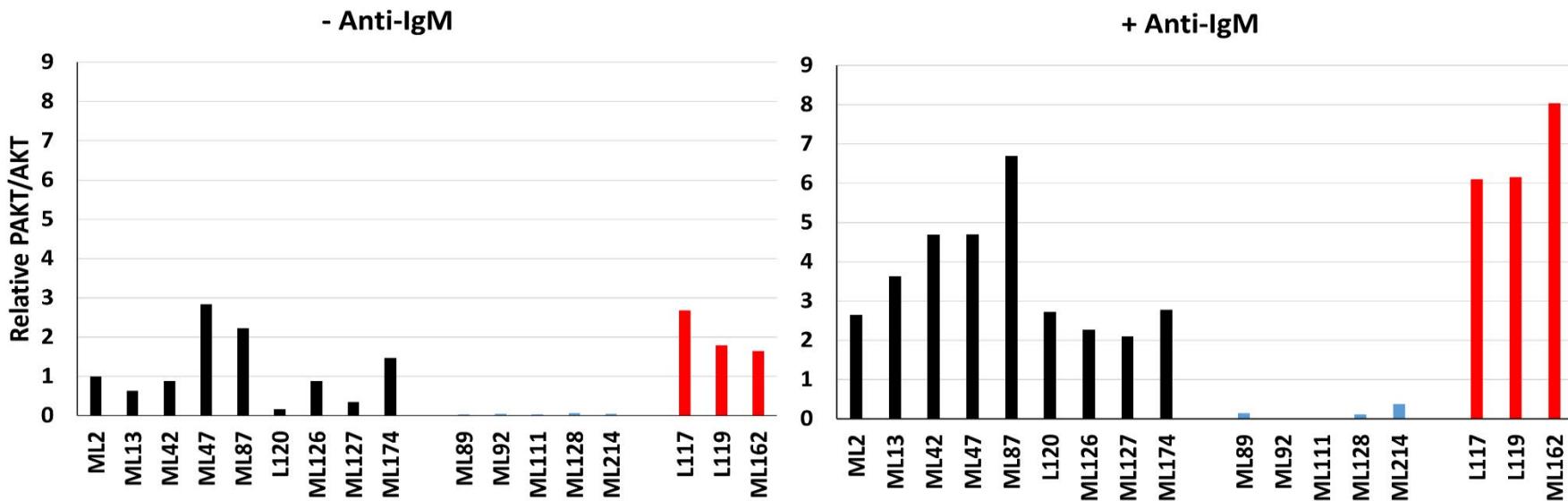
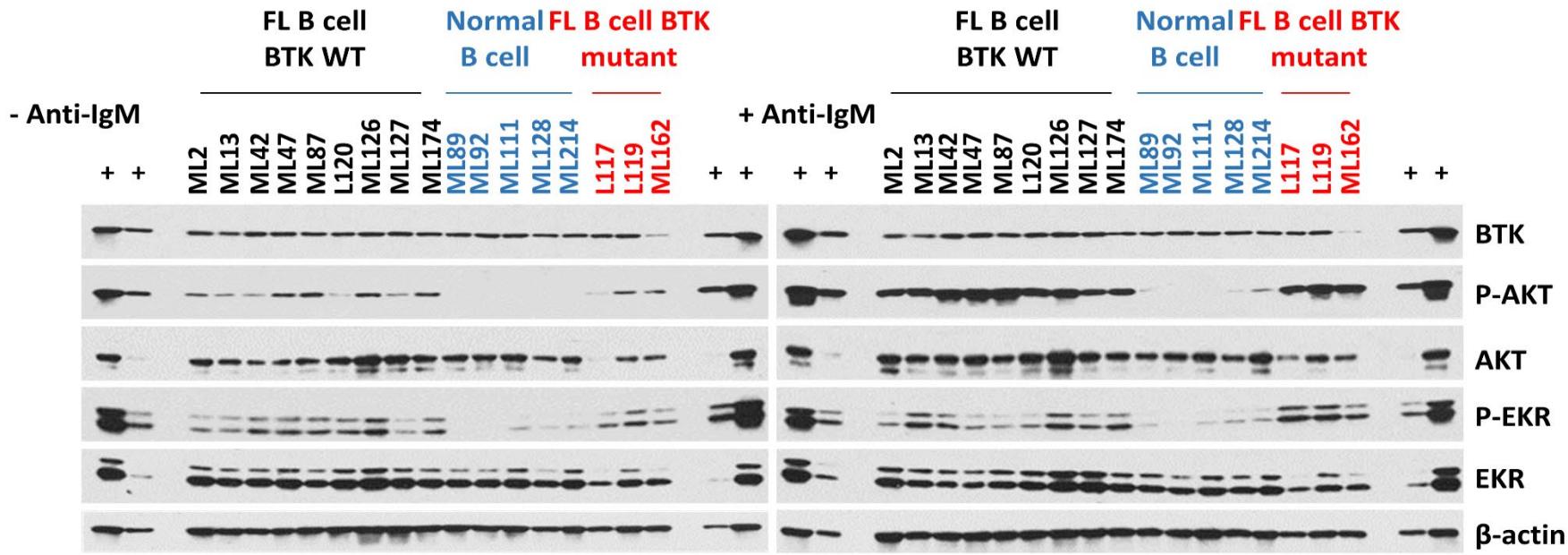
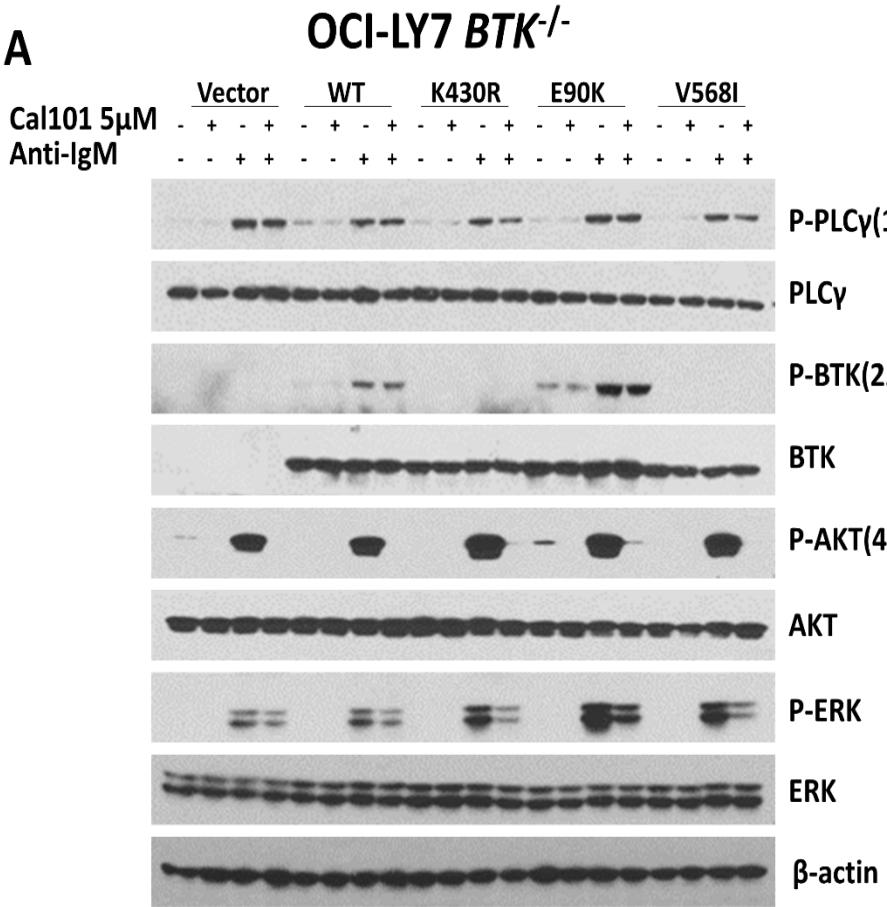
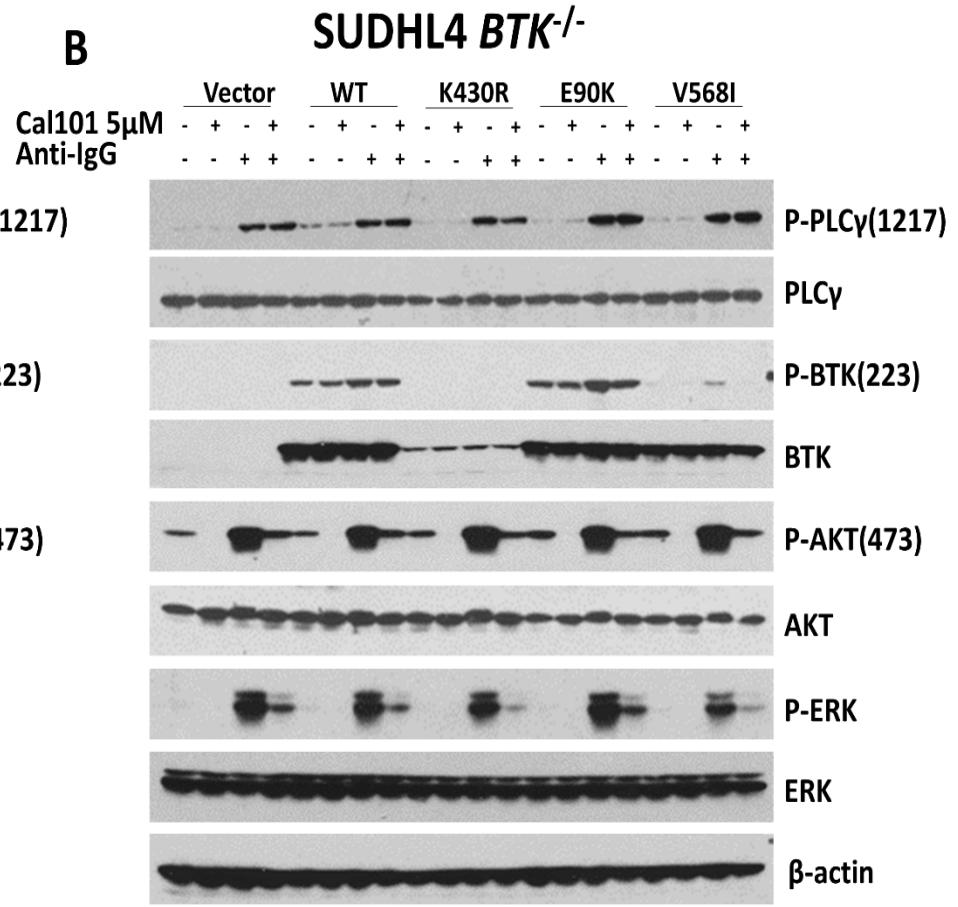


Figure S10

**A****B****Figure S11**

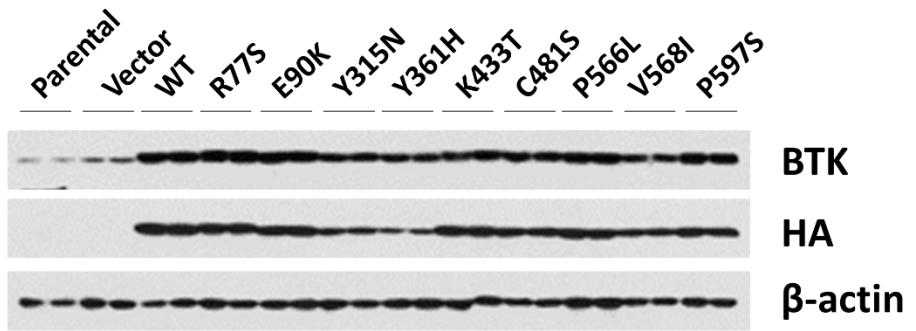
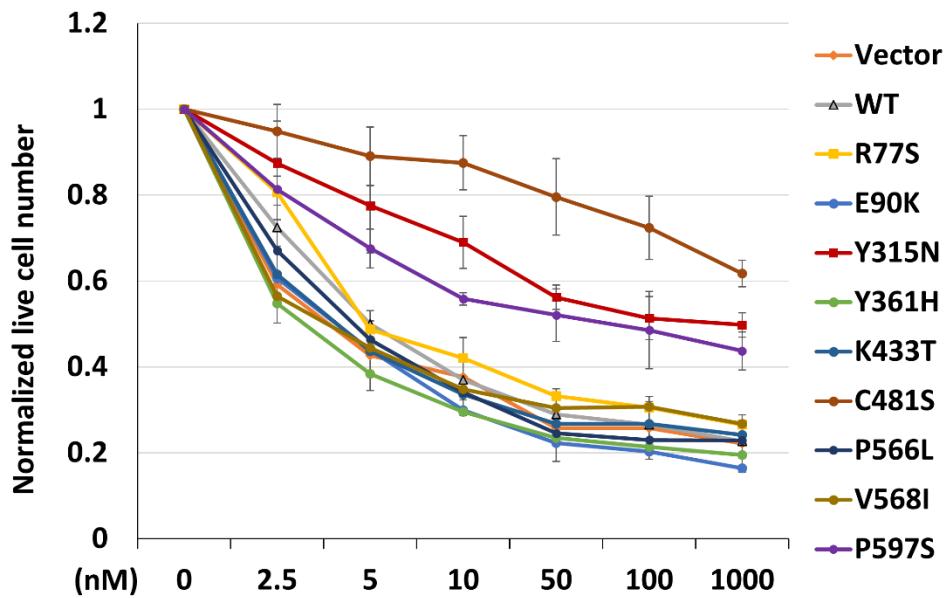
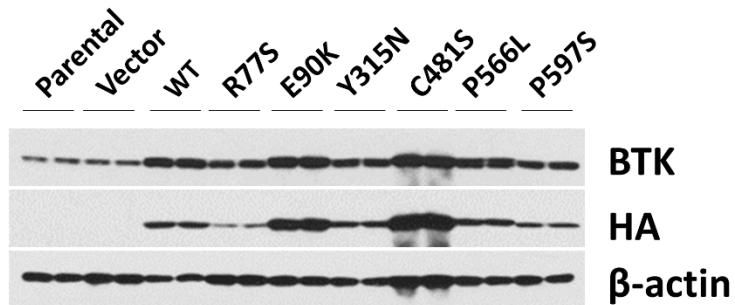
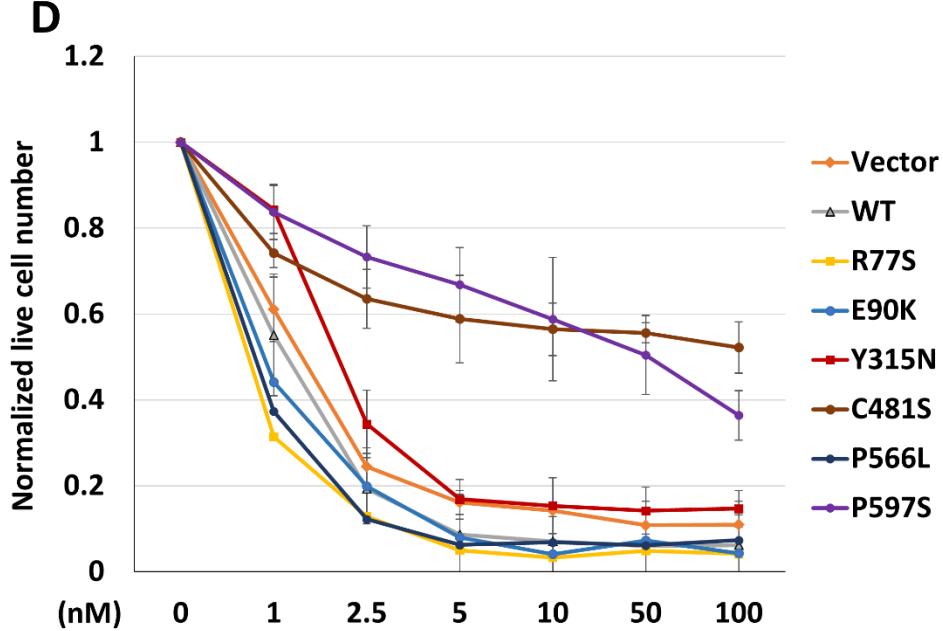
**A****HBL1****B****C****TMD8****D**

Figure S12