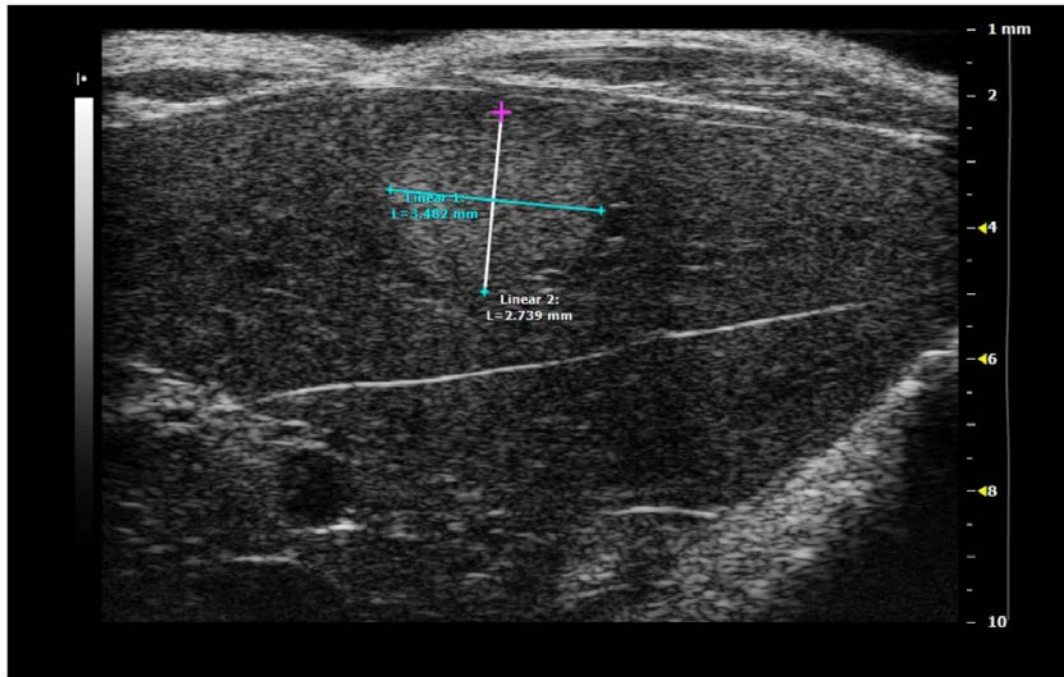
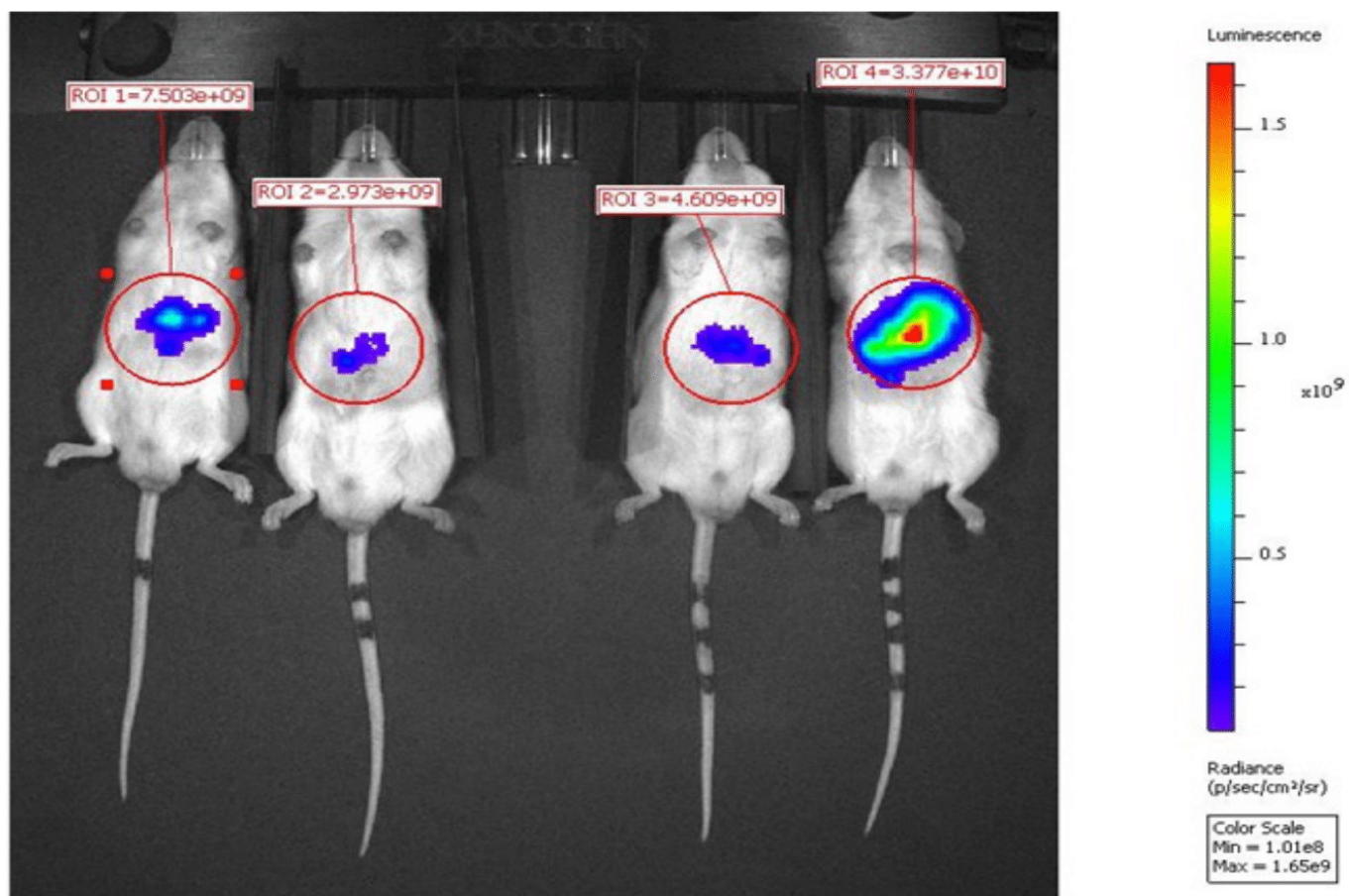


**Figure S1.** Implantation of human-derived HCC cells into the left lateral lobe of NSG-mouse liver parenchyma



**Figure S2.** Abdominal sonography of NSG-mouse to detect liver parenchyma tumor growth and to measure its dimension after orthotopic injection of HCC cells

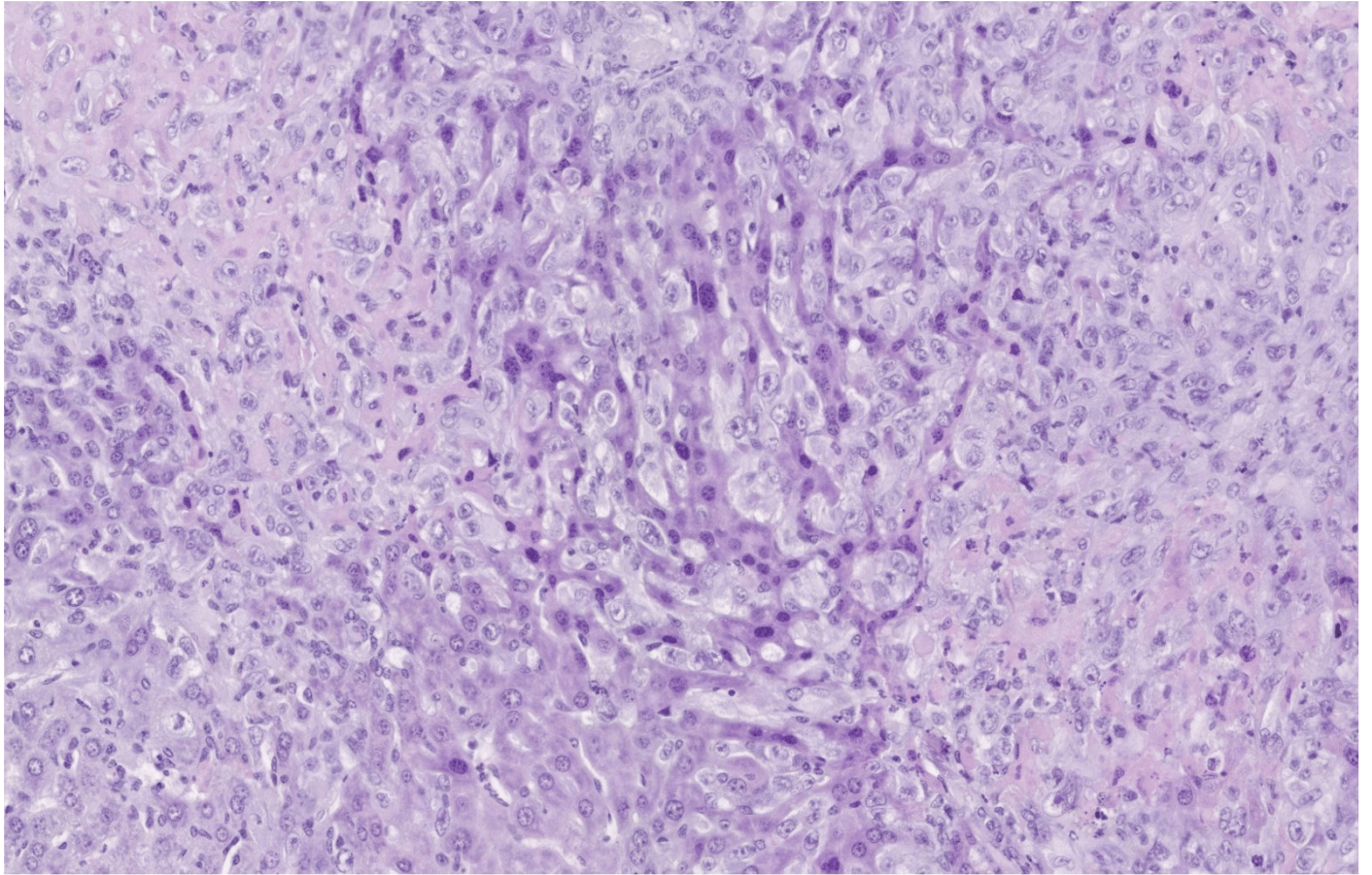


**Figure S3.** Bioluminescence screening to early detect tumor engraftment in the liver of NSG-mouse





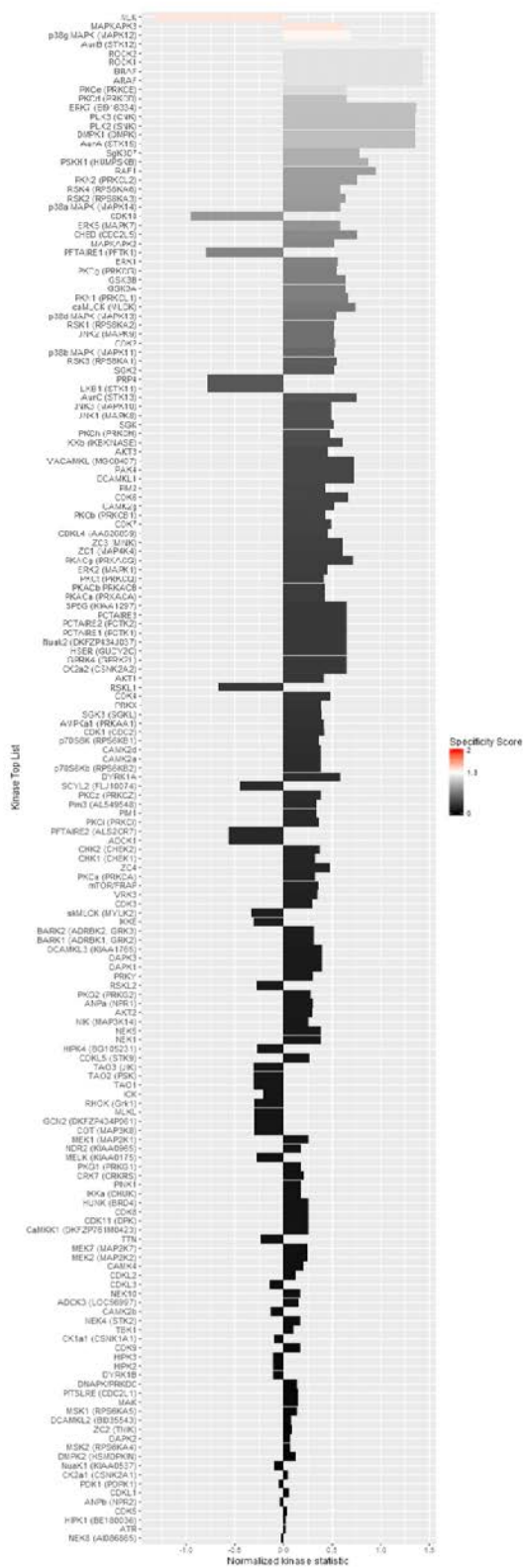
**Figure S4.** Harvested NSG-mouse liver showing tumor growth in the liver parenchyma



**Figure S5.** Histologic assessment of the liver specimens revealed infiltrates of malignant tumor cells with-out evident lineage. The tumor cells were mostly plump, partially spindled and showed highly pleomorphic nuclei with cleared chromatin and prominent nucleoli. Tumors were unencapsulated and showed a dissecting growth pattern between adjacent hepatocytes. The central aspects of the tumors showed large areas of necrosis. The morphologic findings are in keeping with prior descriptions of SK-HEP1 infiltrates

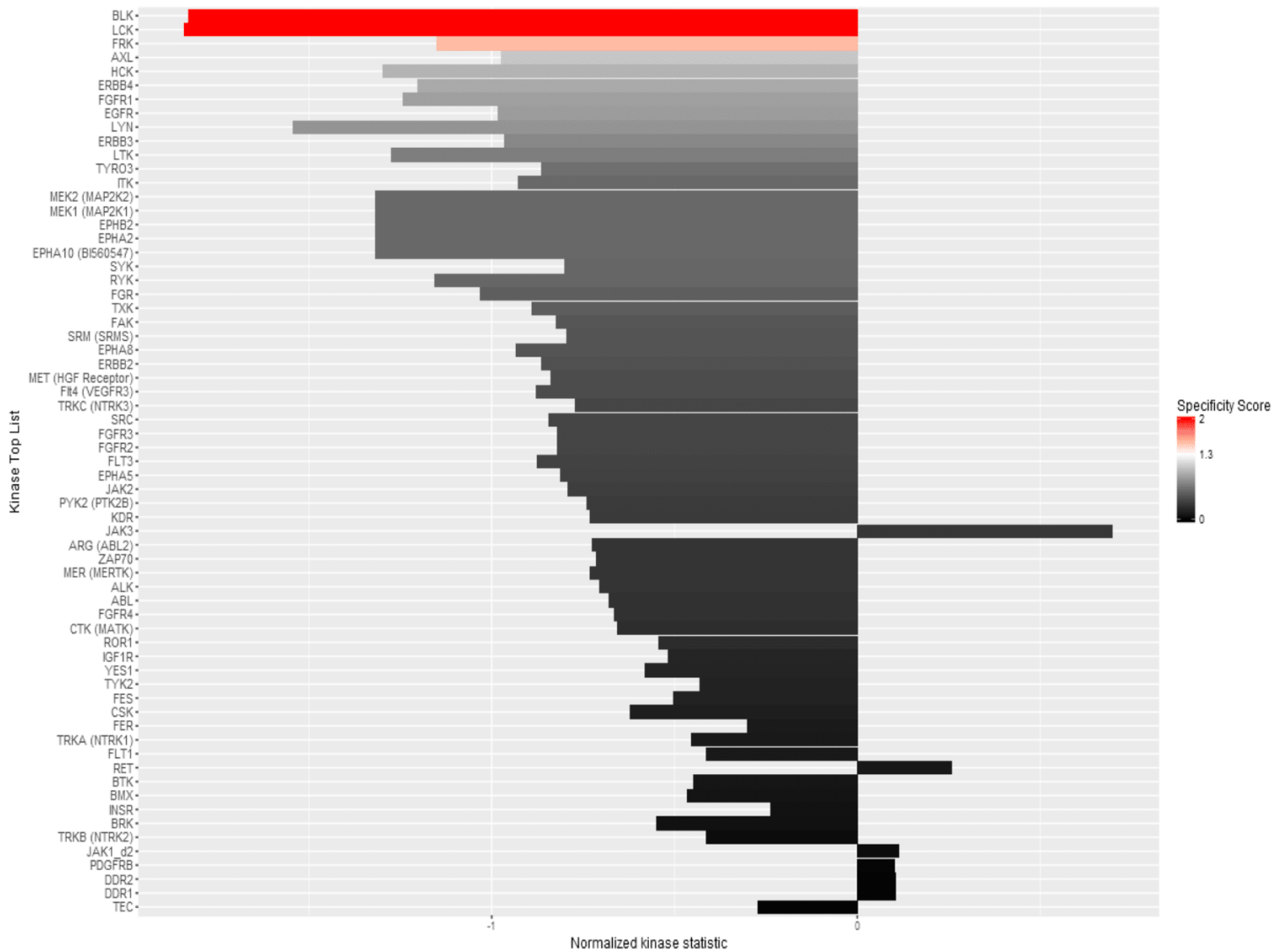


## C1 vs T3 STK



**Figure S6.** Complete list of up- or downregulated serine/threonine kinases of the third tumor from the treatment group (T3) in comparison with the first HCC-1 xenograft tumor of the control group (C1) after profiling using PamGene assays as described in Figure 3H

## C1 vs T3 PTK



**Figure S7.** Complete list of up- or downregulated tyrosine kinases of the third tumor from the treatment group (T3) in comparison with the first HCC-1 xenograft tumor of the control group (C1) after profiling using PamGene assays as described in Figure 3I

Figure 2A

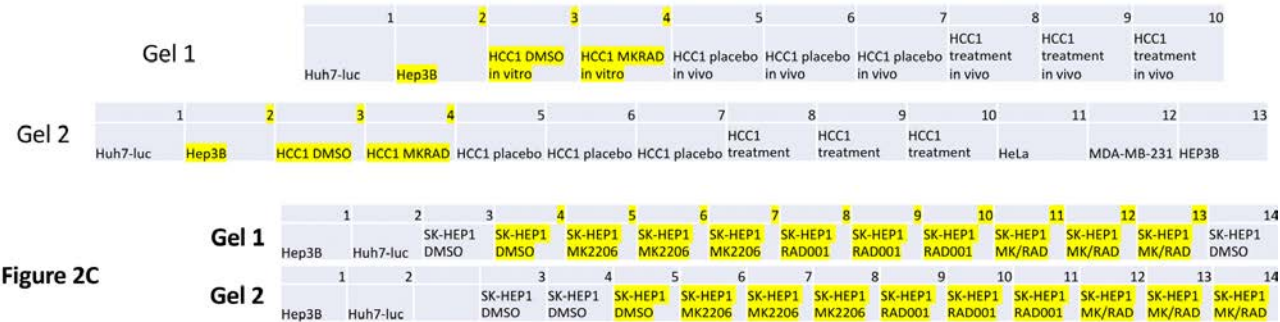


Figure 2C

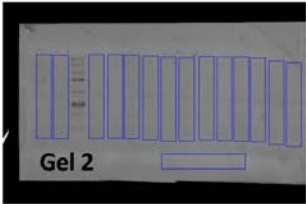
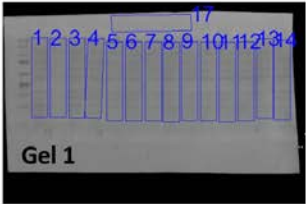
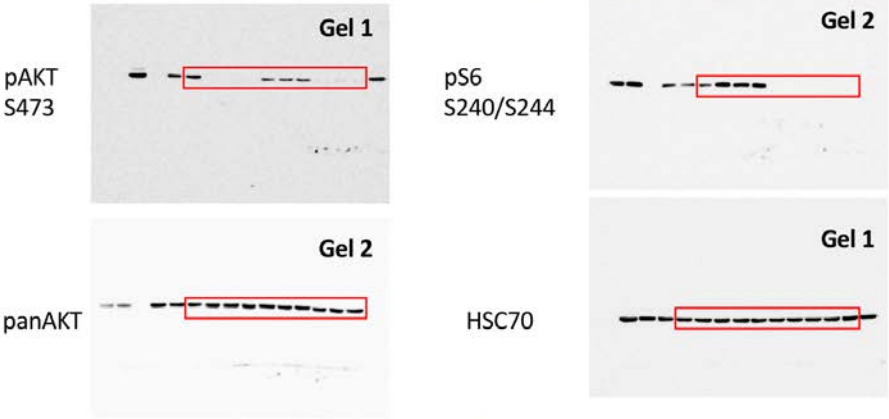




Figure 3B

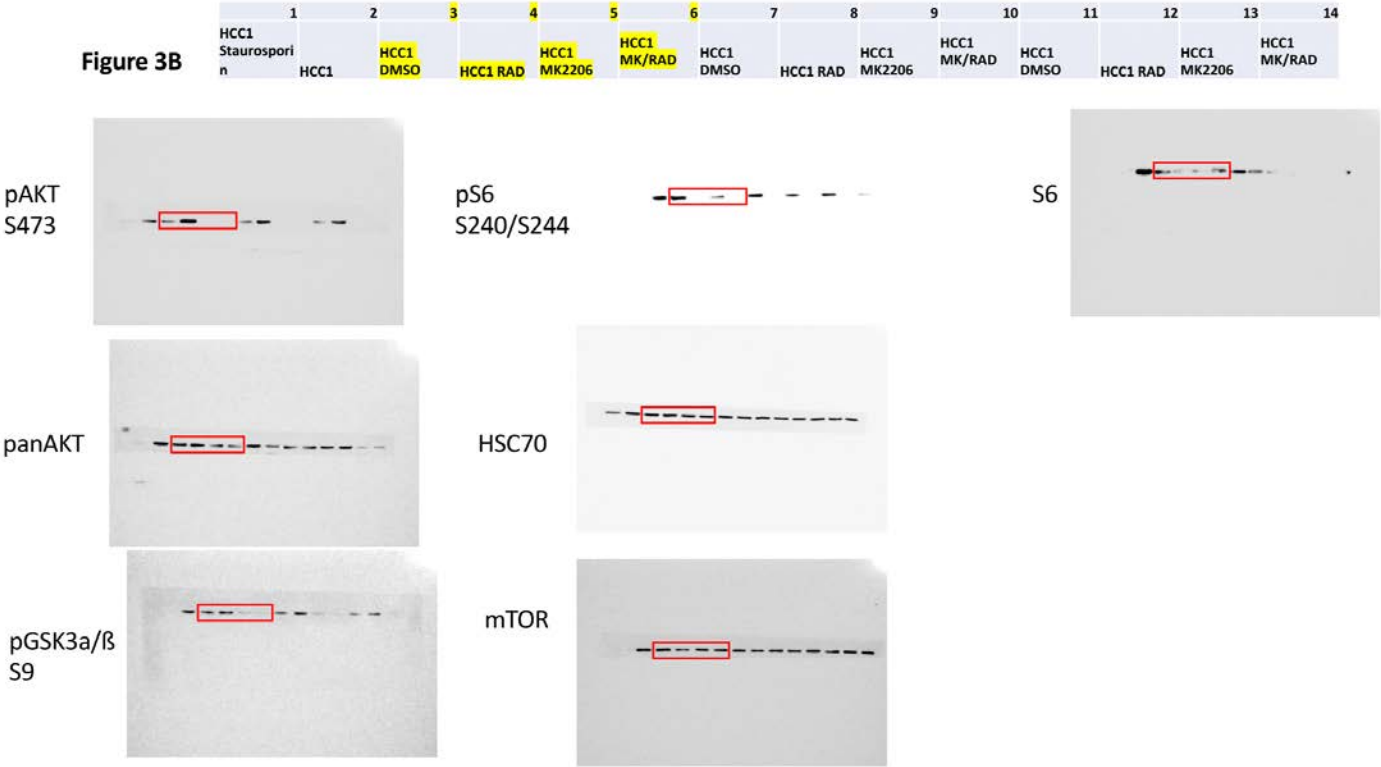


Figure 3E

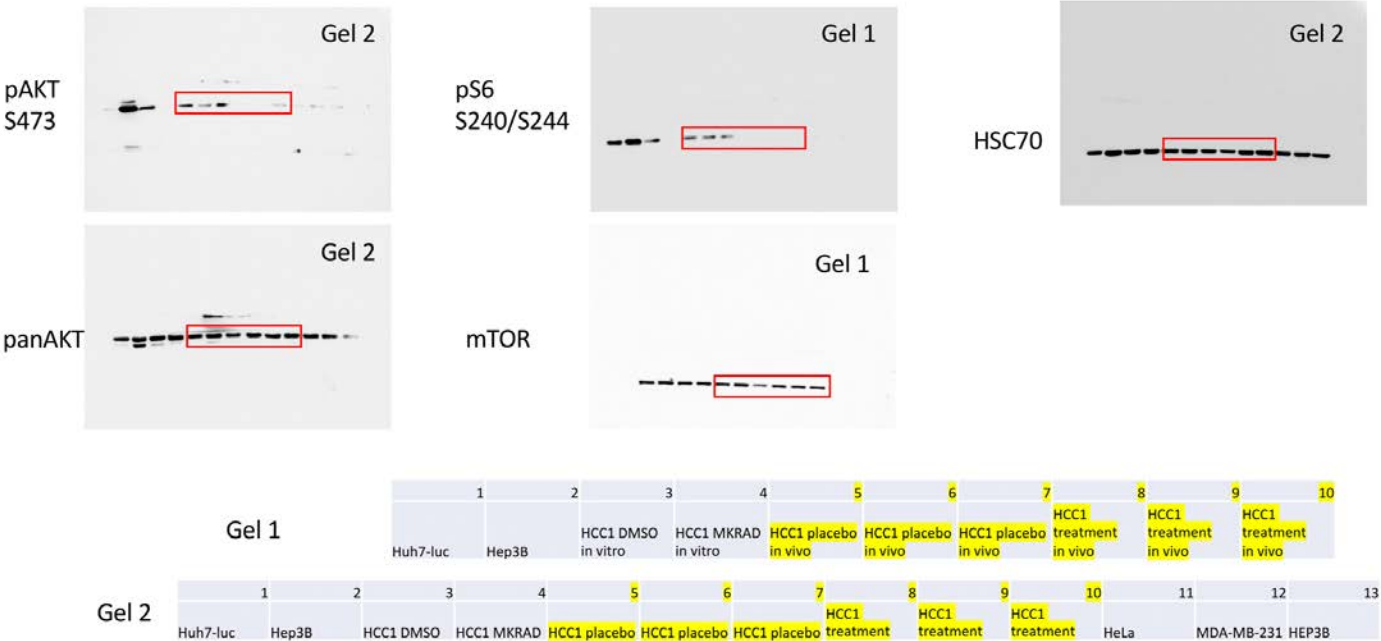


Figure 4E

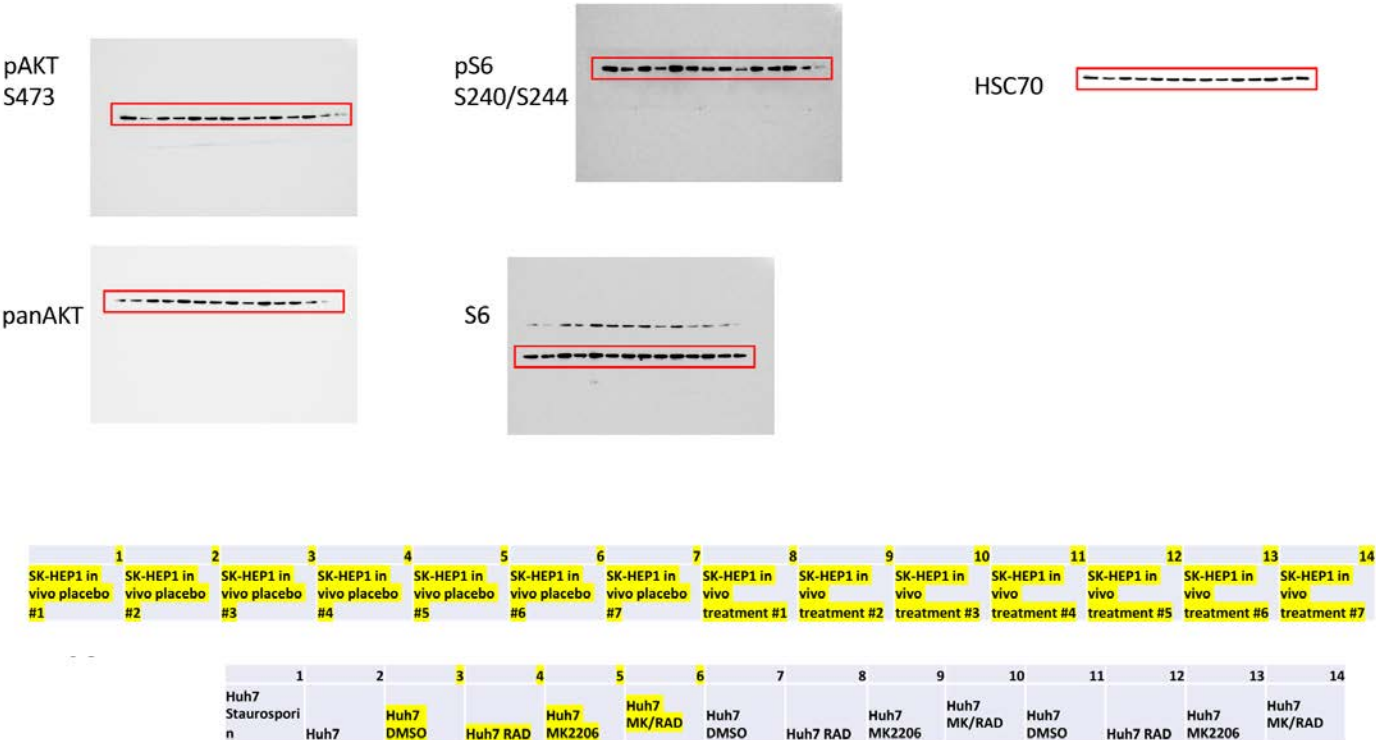


Figure 5A

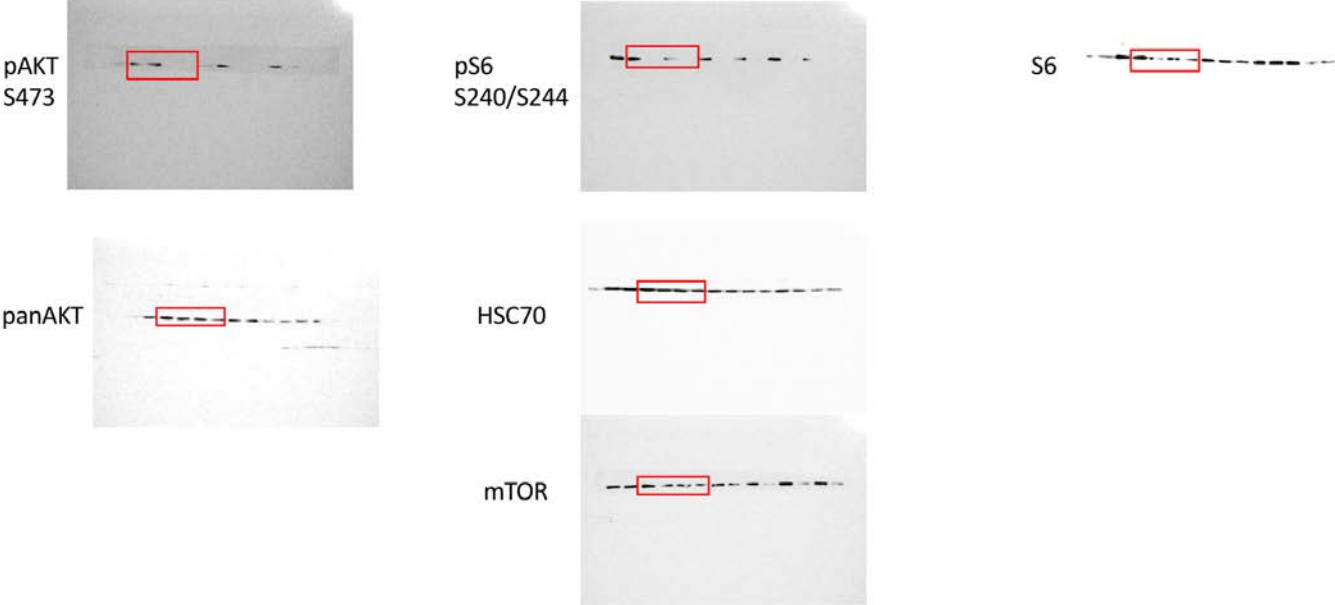


Figure 5D

pAKT  
S473



pS6  
S240/S244



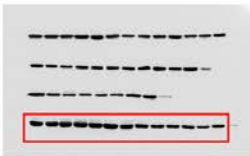
panAKT



mTOR



HSC70



pGSK3a/β  
S9



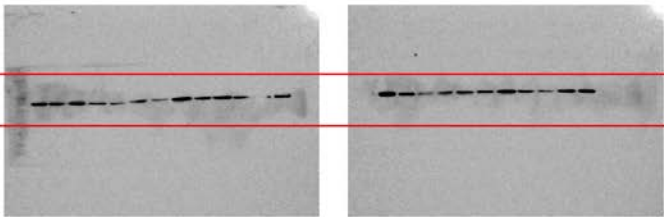
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Placeb	Placeb	Placeb	Placeb	Placeb	Placeb	Treatm	Treatm	Treatm	Treatm	Treatm	Treatm		MDA-
	o Huh7	o Huh7	o Huh7	o Huh7	o Huh7	o Huh7	ent	ent	ent	ent	ent	ent		MB-
	in vivo	in vivo	in vivo	in vivo	in vivo	in vivo	in vivo	in vivo	in vivo	in vivo	in vivo	in vivo	DMSO	231
	#32	#34	#35	#36	#53	#55	#37	#39	#40	#41	#47	#52		

Figure 5E

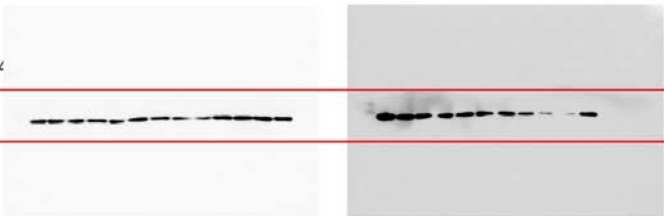
Controls

Treatment

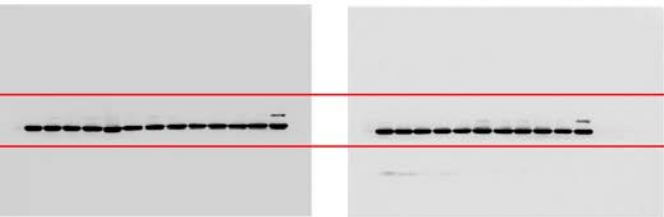
pAKT  
S473



pS6  
S240/S244



HSC70



Controls:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	*
	31	32	31	32	33	34	35	43	44	53	54	55	DMS	MDA-	only on
	LLL	LML	RML	RML	RML	RML	RML	RML	RML	RML	RML	RML	O	MB-	panAKT
														231 *	blots)

Treatment:

	1	2	3	4	5	6	7	8	9	10	11	12
	37 RML	38 RML	39 RML	40 RML	41 RML	42 RML	46 RML	47 RML	48 RML	52 RML	DMSO	
												MDA-
												MB-231
												*

Controls

Treatment

panAKT



mTOR



Figure 5F

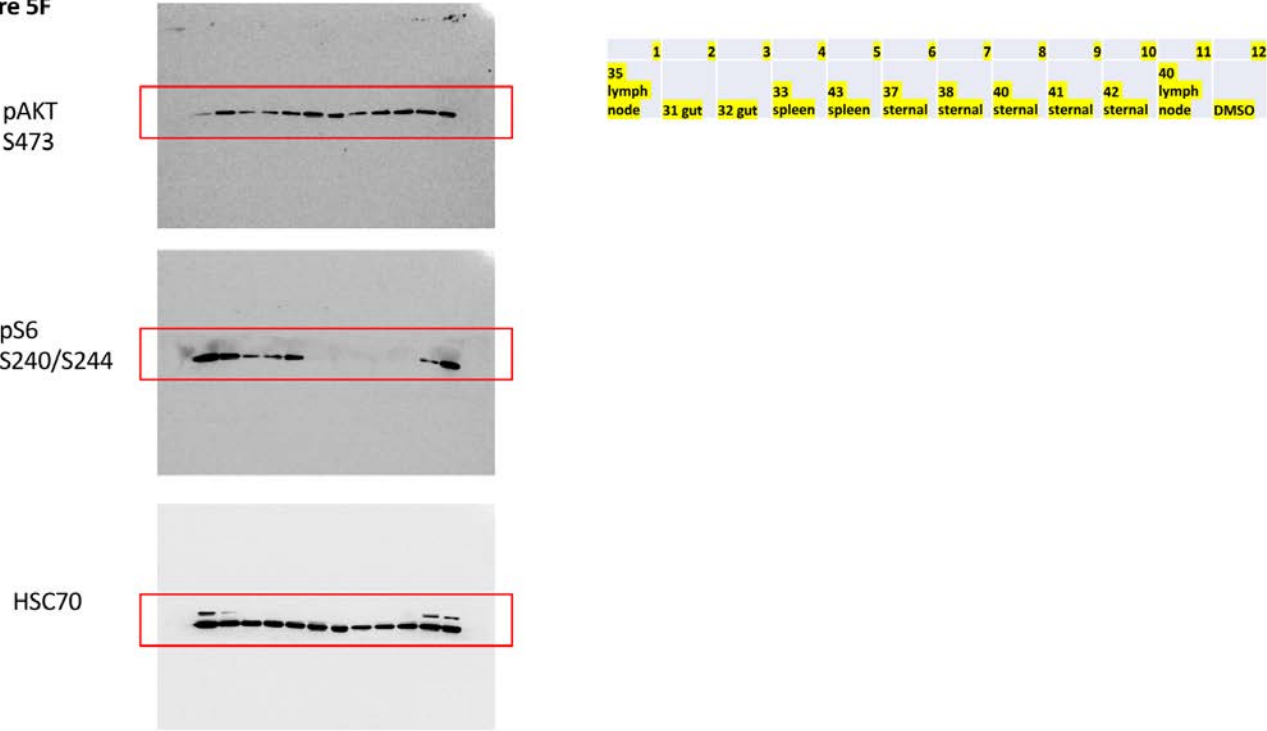


Figure S8. Original uncropped Western blots.