

## **SUPPLEMENTAL DATA**

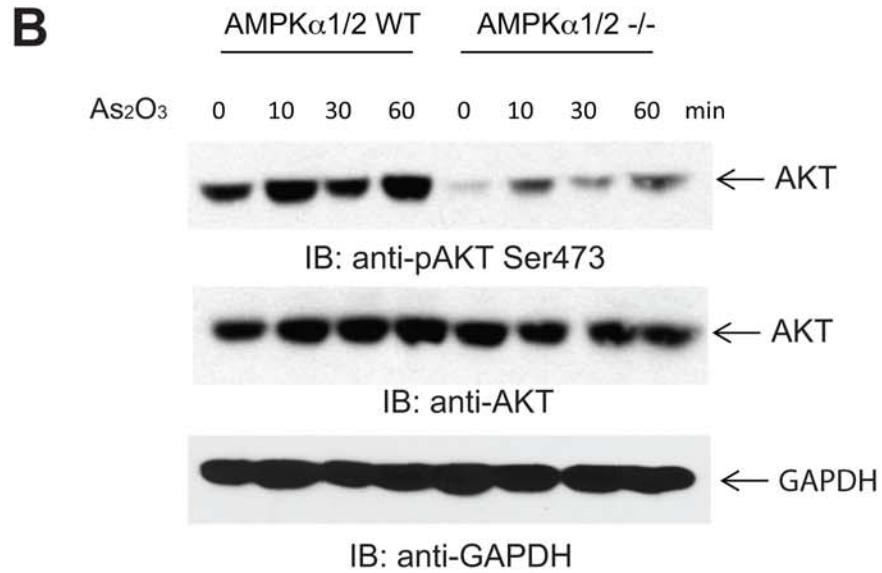
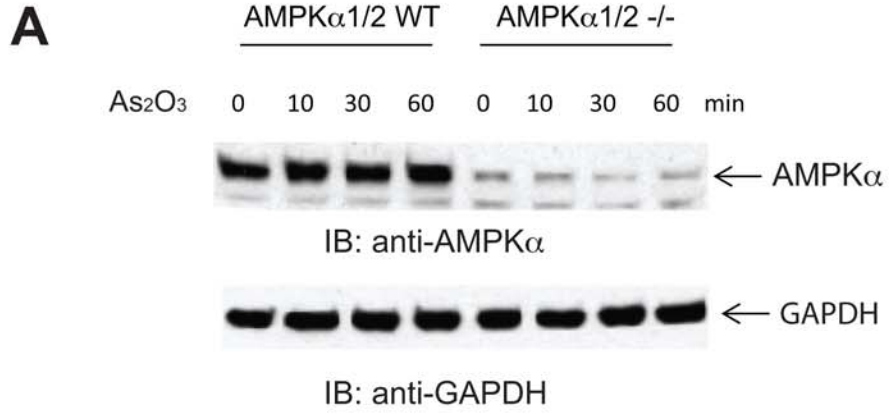
### **Supplemental Figure S1. Targeted disruption of AMPK $\alpha$ 1/2 does not affect arsenic-inducible phosphorylation of AKT at Ser473.**

(A) AMPK 1/2 WT and knockout MEFs were serum starved overnight and then treated with As<sub>2</sub>O<sub>3</sub> (5  $\mu$ M) for the indicated times. Total lysates were then subjected to SDS-PAGE and immunoblotted as indicated with antibodies against AMPK $\alpha$  or against GAPDH. (B) AMPK 1/2 WT and knockout MEFs were serum starved overnight and then treated with As<sub>2</sub>O<sub>3</sub> (5  $\mu$ M) for the indicated times. Total lysates were then subjected to SDS-PAGE and immunoblotted as indicated with antibodies against the phosphorylated form of AKT at Ser473 or against AKT or against GAPDH, as indicated. The immunoblots with antibodies against the phosphorylated forms of the proteins or against the total proteins were from lysates from the same experiments analyzed in parallel by SDS-PAGE.

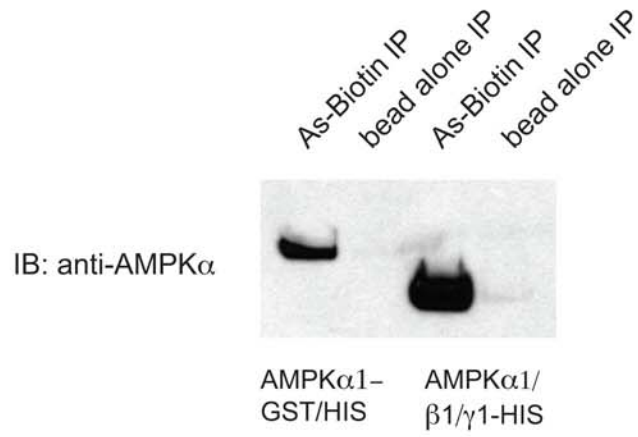
### **Supplemental Figure S2. As- Biotin binds to AMPK $\alpha$ as measured by mass spectroscopy**

(A) Immunoblot of streptavidin pulldowns of AMPK recombinant protein that was sent for mass spectroscopy. (B) Corresponding spectrum and table of matching ions for mass spectroscopy results.

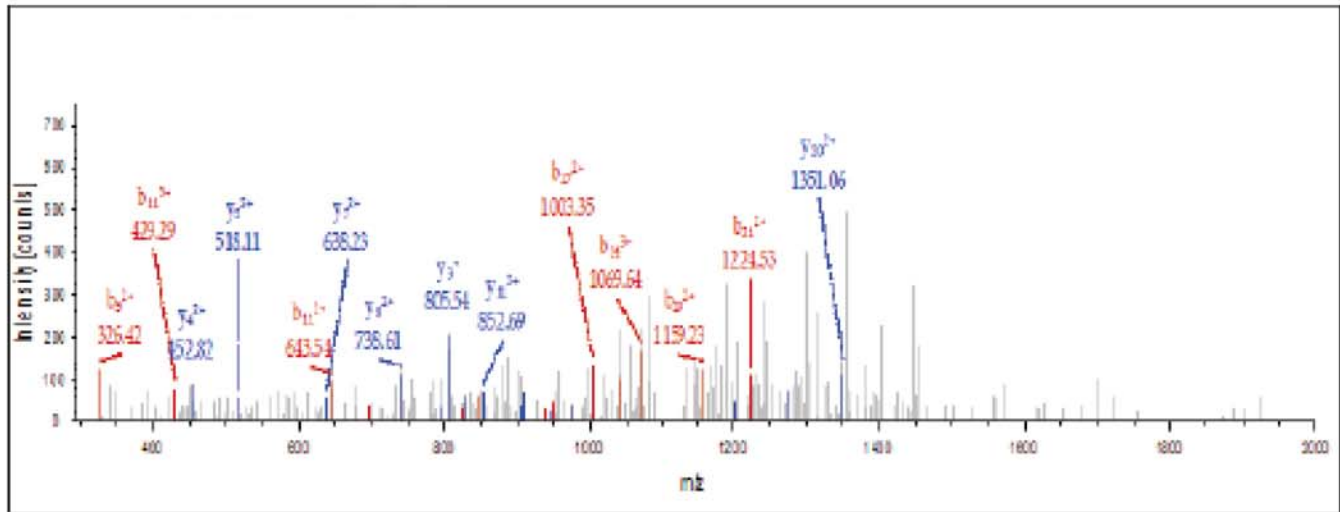
# Supplemental Figure S1



A



B



#1	b <sup>+</sup>	b <sup>2+</sup>	b <sup>3+</sup>	Seq.	y <sup>+</sup>	y <sup>2+</sup>	y <sup>3+</sup>	#2
1	164.07060	82.53894	55.36172	Y				25
2	277.15467	139.08097	93.05641	L	3188.59244	1594.79986	1063.53566	24
3	424.22309	212.61518	142.07921	F	3075.50837	1538.25782	1025.84097	23
4	521.27586	261.14157	174.43014	P	2928.43995	1464.72361	976.81817	22
5	650.31846	325.66287	217.44434	E	2831.38718	1416.19723	944.46724	21
6	765.34541	383.17634	255.78665	D	2702.34458	1351.67593	901.45304	20
7	862.39818	431.70273	288.13758	P	2587.31763	1294.16245	863.11073	19
8	949.43021	475.21874	317.14825	S	2490.26486	1245.63607	830.75980	18
9	1112.49353	556.75040	371.50269	Y	2403.23283	1202.12005	801.74913	17
10	1199.52556	600.26642	400.51337	S	2240.16951	1120.58839	747.39469	16
11	1286.55759	643.78243	429.52405	S	2153.13748	1077.07238	718.38401	15
12	1387.60527	694.30627	463.20661	T	2066.10545	1033.55636	689.37333	14
13	1534.64068	767.82398	512.21841	M-Oxidation	1965.05777	983.03252	655.69077	13
14	1647.72475	824.36601	549.91310	I	1818.02235	909.51481	606.67897	12
15	1762.75170	881.87949	588.25542	D	1704.93828	852.97278	568.98428	11
16	1877.77865	939.39296	626.59773	D	1589.91133	795.45930	530.64196	10
17	2006.82125	1003.91426	669.61193	E	1474.88438	737.94583	492.29964	9
18	2077.85837	1039.43282	693.29097	A	1345.84178	673.42453	449.28544	8
19	2190.94244	1095.97486	730.98566	L	1274.80466	637.90597	425.60640	7
20	2319.03741	1160.02234	773.68399	K	1161.72059	581.36393	387.91171	6
21	2448.08001	1224.54364	816.69819	E	1033.62562	517.31645	345.21339	5
22	2547.14843	1274.07785	849.72099	V	904.58302	452.79515	302.19919	4
23	3076.50762	1538.75745	1026.17406	C-Arsenic biotin	805.51460	403.26094	269.17638	3
24	3205.55022	1603.27875	1069.18826	E	276.15541	138.58134	92.72332	2
25				K	147.11281	74.06004	49.70912	1