SUPPORTING INFORMATION

Identification of 4-(2-(4-Amino-1,2,5-oxadiazol-3-yl)-1-ethyl-7-{[(3*S*)-3-piperidinylmethyl]oxy}-1*H*-imidazo[4,5-*c*]pyridin-4-yl)-2-methyl-3-butyn-2-ol (GSK690693), A Novel Inhibitor of AKT Kinase.

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Table S1. Combustion Analysis for compounds **3a-h**, **10**, **11a-d**, **12a-d**, **13** and **14a-b**.

Compd	Formula	Calculated			Found		
		C	H	N	C	H	N
1	$C_{15}H_{19}N_7O_2 \cdot 1.45\ C_2HF_3O_2$	43.46	4.17	19.82	43.93	4.13	19.35
3a	$C_{19}H_{25}N_7O_3 \cdot 2\ C_2HF_3O_2 \cdot H_2O$	42.80	4.53	15.19	42.79	4.41	15.10
3b	$C_{21}H_{27}N_7O_3 \cdot 2\ C_2HF_3O_2 \cdot 0.5\ H_2O$	45.32	4.56	14.80	45.32	4.47	14.71
3c	$C_{17}H_{21}N_7O_3 \cdot C_2HF_3O_2 \cdot 0.5\ H_2O$	46.16	4.69	19.83	46.49	4.37	19.65
3d	$C_{25}H_{29}N_7O_3 \cdot 2\ C_2HF_3O_2$	49.51	4.44	13.94	49.58	4.69	14.03
3e	$C_{20}H_{25}N_7O_3 \cdot 2\ C_2HF_3O_2 \cdot 2\ H_2O$	42.67	4.63	14.51	42.48	4.35	14.47
3f	$C_{20}H_{25}N_7O_3 \cdot 2\ C_2HF_3O_2$	45.08	4.26	15.33	45.03	4.18	15.16
3g	$C_{21}H_{27}N_7O_3 \cdot 0.5H_2O$	58.05	6.50	22.57	58.32	6.28	22.32
3h	$C_{21}H_{27}N_7O_3 \cdot 2\ C_2HF_3O_2 \cdot H_2O$	44.71	4.65	14.60	44.87	4.48	14.23
10	$C_{19}H_{21}N_7O_2 \cdot 2\ C_2HF_3O_2$	45.48	3.82	16.14	45.77	3.80	16.22
11a	$C_{17}H_{20}N_8O_2 \cdot 2\ C_2HF_3O_2 \cdot 0.5\ H_2O$	41.66	3.83	18.51	41.85	3.51	18.49
11b	$C_{17}H_{19}N_7O_3 \cdot 2\ C_2HF_3O_2 \cdot H_2O$	40.98	3.77	15.93	40.89	3.48	15.68
11c	$C_{17}H_{20}N_8O_2 \cdot 2\ C_2HF_3O_2$	42.29	3.72	18.79	42.07	3.55	18.48
11d	$C_{16}H_{19}N_9O_2 \cdot 2\ C_2HF_3O_2 \cdot 0.5\ H_2O$	39.61	3.66	20.79	39.77	3.34	20.54
12a	$C_{18}H_{21}N_7O_2 \cdot 2\ C_2HF_3O_2 \cdot 0.5\ H_2O$	43.72	4.00	16.22	43.69	3.75	16.05
12b	$C_{18}H_{23}N_7O_3 \cdot 2\ C_2HF_3O_2$	43.07	4.11	15.98	42.74	4.31	16.06
12c	$C_{16}H_{19}N_7O_3 \cdot 2\ C_2HF_3O_2$	41.03	3.62	16.75	41.10	3.59	16.97
12d	$C_{17}H_{21}N_7O_3 \cdot 2\ C_2HF_3O_2 \cdot 0.5\ H_2O$	41.45	3.98	16.11	41.56	3.72	15.86
13	$C_{16}H_{20}N_8O_2 \cdot 3\ C_2H_1F_3O_2 \cdot 0.75\ H_2O$	37.11	3.47	15.74	37.26	3.19	15.41
14a	$C_{27}H_{33}N_7O_4 \cdot 2\ C_2HF_3O_2 \cdot 0.5\ CH_3CN$	50.03	4.79	13.68	50.31	5.07	13.62
14b	$C_{21}H_{29}N_7O_5 \cdot H_2O$	52.82	6.54	20.53	53.21	6.55	20.64

Figure S1. Kinetic characterization of **3g** against AKT2. (A) IC_{50} of compound **3g** with (filled circles) and without (open circles) a pre-incubation with AKT2. (B) IC_{50} values of **3g** as a function of ATP concentration against AKT2. (C) Recovery of enzymatic activity following rapidly diluting the preformed AKT2-**3g** complex into substrate mix. Filled circles represent the control reaction in the absence of **3g** and open circles represent the dissociation of **3g** from AKT2.