Supplementary Figure 1

42MBGA


42MBGA-TMZres


42MBGA-TMZres


## Supplementary Figure 2

| Kinase | Nanosyn \%l |  | $\begin{aligned} & \text { SGCDSF } \\ & \Delta \mathrm{T}_{\mathrm{m}} /{ }^{\circ} \mathrm{C} \end{aligned}$ | DiscoverX |  | $\begin{aligned} & \hline \text { RBC } \\ & \text { IC }_{50} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 100 nM | $1.0 \mu \mathrm{M}$ |  | $\begin{gathered} \text { PoC } \\ @ 1 \mu \mathrm{M} \end{gathered}$ | $K_{\text {D }}$ |  |
| CLK1 |  |  |  | 2.90\% | 26 nM | 10 nM |
| CLK2 | 81\% | 96\% |  | 8.30\% | 4.9 nM | 0.73 nM |
| CLK3 | 4\% | 22\% | $0.4{ }^{\circ} \mathrm{C}$ | 89\% | nt | nt |
| CLK4 |  |  | $5.8{ }^{\circ} \mathrm{C}$ | 27\% | 140 nM | 8.8 nM |
| DYRK1A | 8\% | 22\% | $1.8{ }^{\circ} \mathrm{C}$ | 73\% | nt | nt |
| DYRK1B | 5\% | 39\% |  | 81\% | nt | nt |
| DYRK2 | 1\% | 6\% | $2.1{ }^{\circ} \mathrm{C}$ | 100\% | nt | nt |
| DYRK3 |  |  |  |  | nt | $>10 \mu \mathrm{M}$ |
| DYRK4 |  |  |  |  | nt | $>10 \mu \mathrm{M}$ |
| HIPK1 | 20\% | 62\% |  | 20\% | $3.6 \mu \mathrm{M}$ | $>10 \mu \mathrm{M}$ |
| HIPK2 |  |  |  | 27\% | 530 nM | nt |
| HIPK3 |  |  |  | 74\% | nt | nt |
| HIPK4 | 4\% | 24\% |  | 76\% | nt | nt |
| SRPK1 | -1\% | -1\% | $0.4{ }^{\circ} \mathrm{C}$ | 100\% | nt | nt |
| SRPK2 |  |  | $0.1{ }^{\circ} \mathrm{C}$ | 100\% | nt | nt |
| MSSK1 | 0\% | 0\% |  | 100\% | nt | nt |
| PRP4 |  |  |  | 100\% |  |  |
| STK16 |  |  | $6.5^{\circ} \mathrm{C}$ | 6.90\% | 210 nM | 100 nM |
| ERK8 |  |  |  | 4.40\% | 35 nM | 120 nM |
| NEK6 | 0\% | 2\% |  | 11\% | 84 nM | $>10 \mu \mathrm{M}$ |
| NEK7 | 3\% | 2\% |  | 19\% | 140 nM | $>10 \mu \mathrm{M}$ |

b.

d.

C.

## NanoBRET IC50s

- CLK4
- CLK2

CLK1 IC50 $=>10,000 \mathrm{nM}$
CLK2 IC50 = 580 nM
CLK4 IC50 $=690 \mathrm{nM}$
e.


## Supplementary Figure 3



Supplementary Figure 4


Supplementary Figure 5


Supplementary Figure 6


