Supplementary Figure 1.
A

B


GA080417



GA010918


GA030518


GA050318


Case 2 (paired)


Supplementary Figure 2.


Supplementary Figure 3.
A.

B.


ATP, peptiide substrate, Z-LYTE buffer


Yes FRET (low C/F ratio) No FRET (high C/F ratio) $\downarrow$
Hits of GRK3 inhibitors
A.

B.


Supplementary Figure 5.

B.

KATOIII
MKN45


C.
D.



MKN45

B.
A.

GA0518

C.



B
NC GRK3 OE

III $O \perp \forall X$

C
NC
GRK3 OE


KATO III
GRK3 OE


Supplementary Figure 8.

B.







## Supplementary Figure 9.



