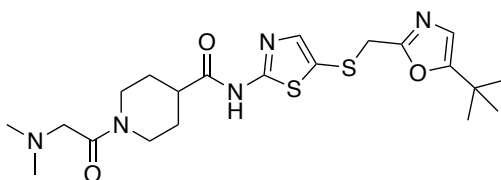


CDKL5



CAF-204

Chemical Name:

N-(5-(((5-(*tert*-butyl)oxazol-2-yl)methyl)thio)thiazol-2-yl)-1-(dimethylglycyl)piperidine-4-carboxamide

CHEBI:143123

Smile String:

O=C(NC1=NC=C(S1)SCC2=NC=C(O2)C(C)(C)C)C3CCN(CC3)C(CN(C)C)=O

Chemical Formula: C₂₁H₃₁N₅O₃S₂

Molecular Weight: 465.63

cLogP: 0.305

Source: SGC-UNC

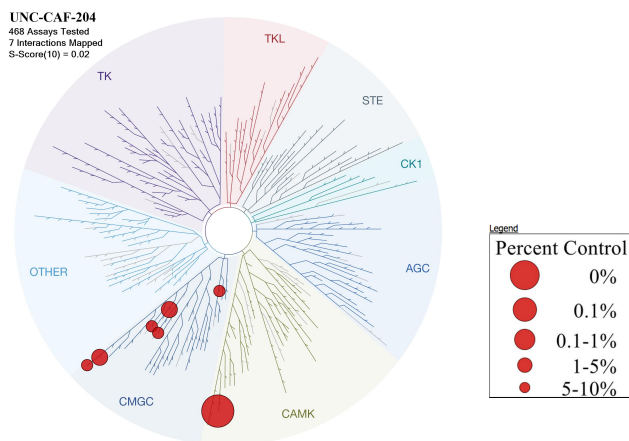
Reference: N/A

Biochemical profiling

DiscoverX (403 wild-type human kinases)

S₁₀ (1μM): 0.017 (7 kinase < 10% control)

CDKL5 K_d = 54 nM



| Kinase | % Control @ 1uM |
|---------------|-----------------|
| SIK | 0 |
| PCTK1 | 2.7 |
| CDK7 | 3 |
| PCTK2 | 5.7 |
| CDKL5 | 6.3 |
| CDK4-cyclinD1 | 7.7 |
| CDC2L5 | 8.2 |

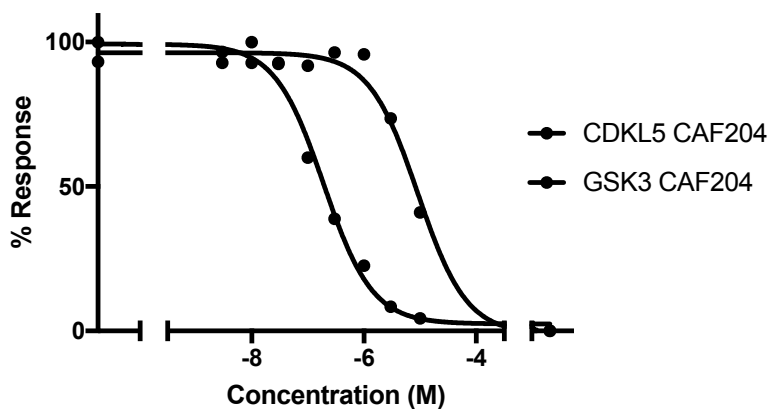
a. Treemap of DiscoverX KINOMEScan data. b. List of kinases inhibited < 10% control

Cellular target engagement in HEK293 cells

NLuc-CDKL5 (N term)

CDKL5 IC_{50} = 190 nM
GSK3 β IC_{50} = 9100 nM

NLuc-GSK3 β (N term)



CDKL5 IC_{50} = 190 nM
GSK3B IC_{50} = 9100 nM

Cellular target engagement of CAF-204 with CDKL5 and GSK3 β

Synthetic Route:

