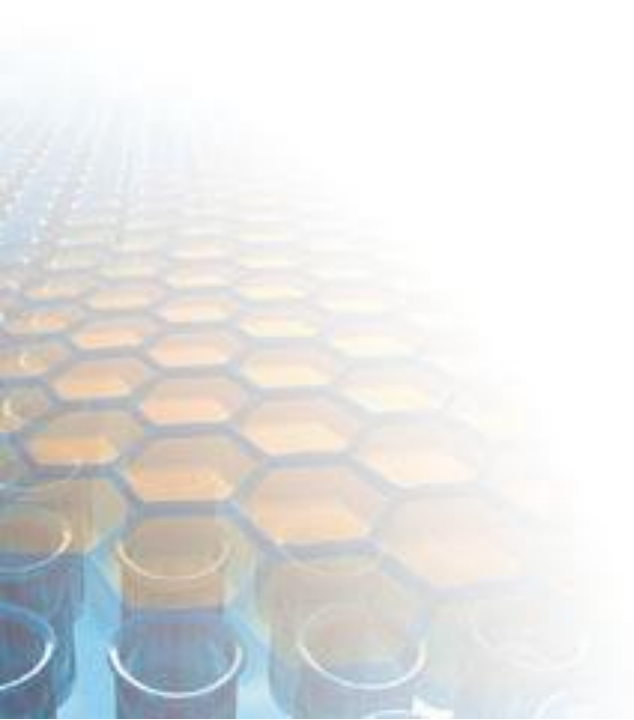
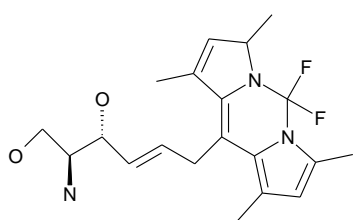


Allosteric Kinase Modulators

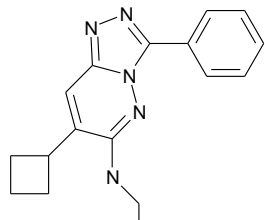


- ▶ more than **135** kinases with allosteric pockets
- ▶ **71** different kinases with small-molecule in allosteric binding site (PDB searching)
- ▶ reference database: **1359** unique allosteric ligands of type II-IV

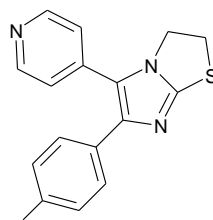
Representative examples



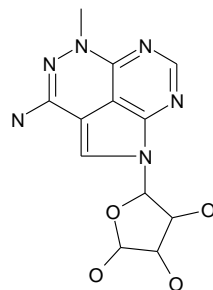
FTY720 analogue
SK1 inhibitor



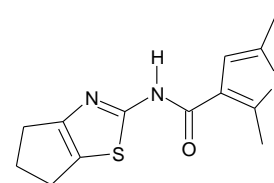
Akt-I-1
Akt1 inhibitor



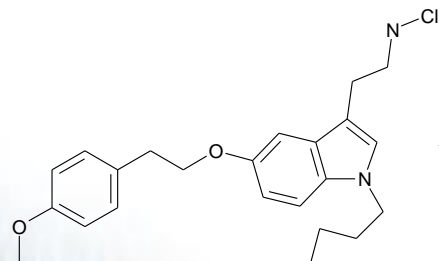
SK&F 86002
p38 MAP kinase inhibitor



API-2
Protein kinase B beta inh

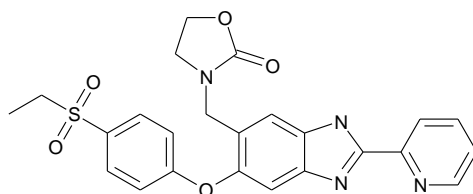


HK4 Hexokinase-D inh

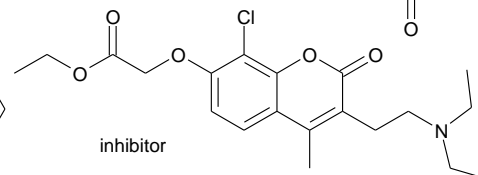


inhibitor

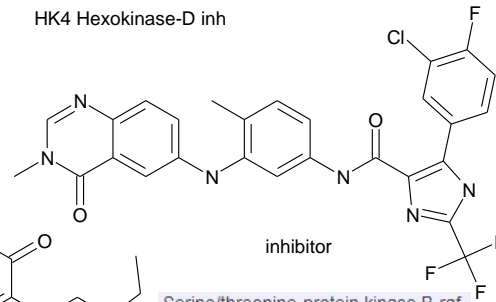
Vascular endothelial growth factor receptor 2
Threonine aspartase 1
Insulin-like growth factor 1 receptor
Epidermal growth factor receptor



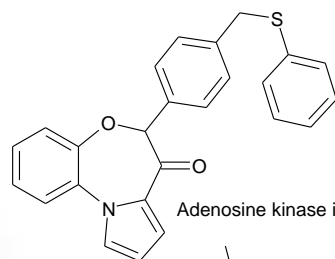
HK4 Hexokinase-D inh



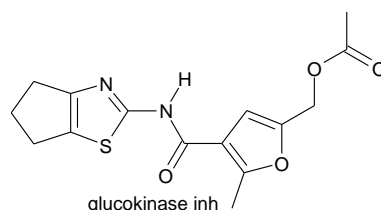
Dual specificity mitogen-activated protein kinase kinase 1
inhibitor



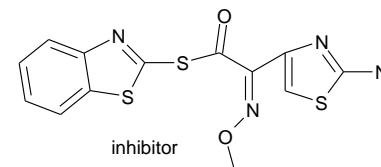
Serine/threonine-protein kinase B-raf
inhibitor



Adenosine kinase inh

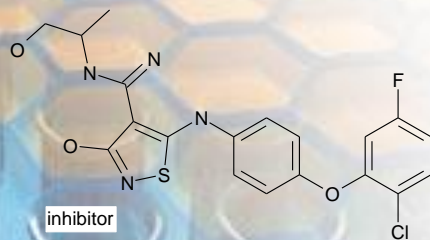


glucokinase inh



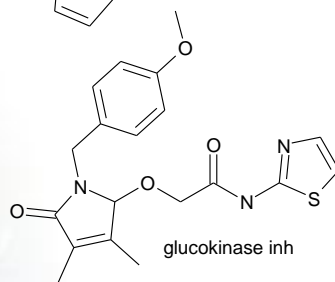
inhibitor

Mitogen-activated protein kinase 8

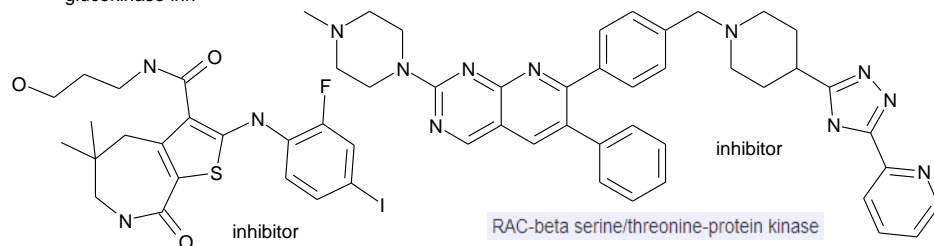


inhibitor

Dual specificity mitogen-activated protein kinase kinase 1



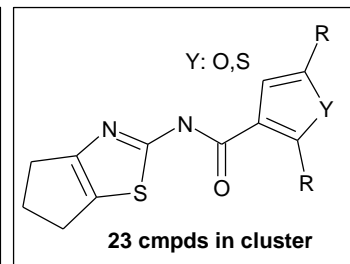
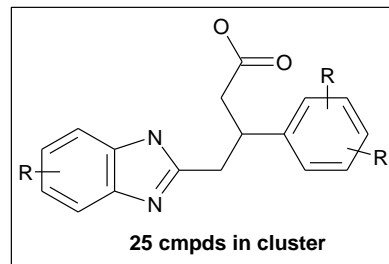
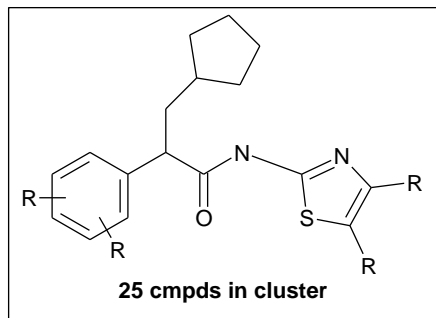
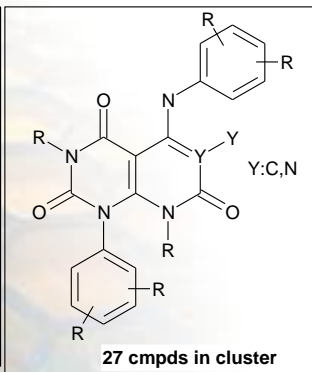
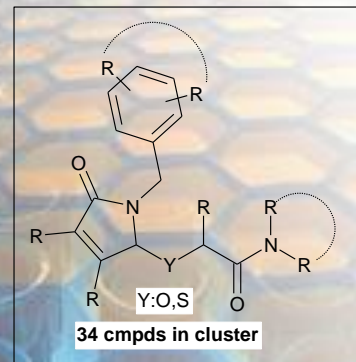
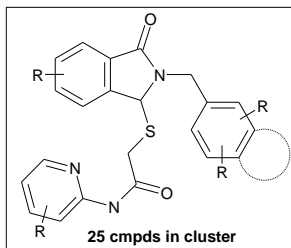
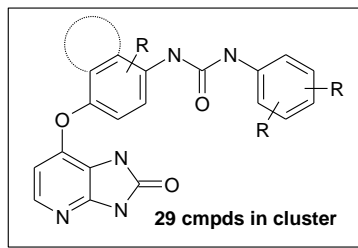
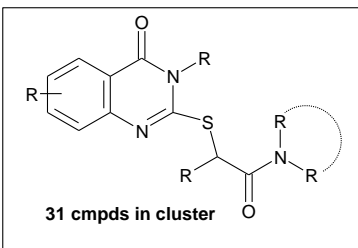
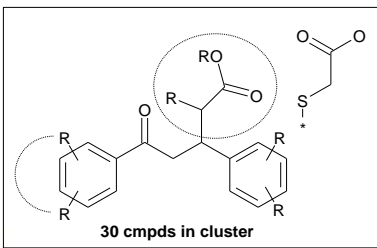
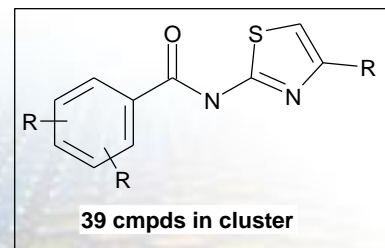
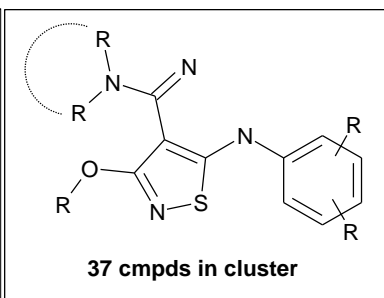
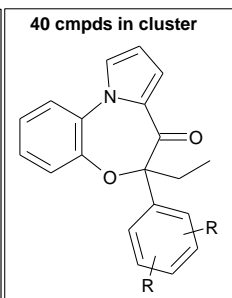
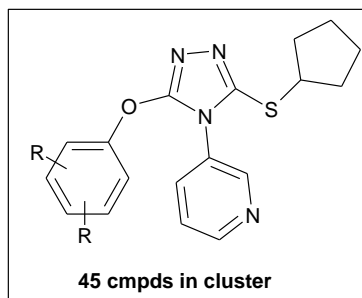
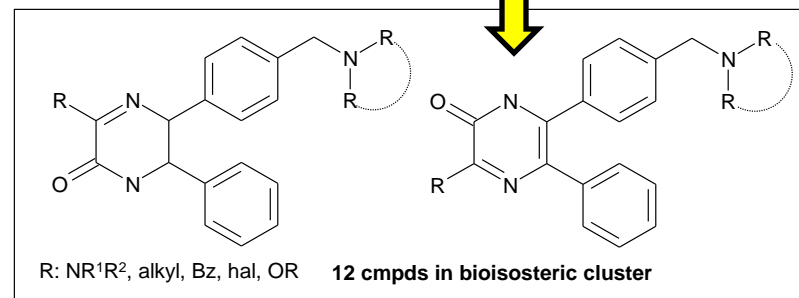
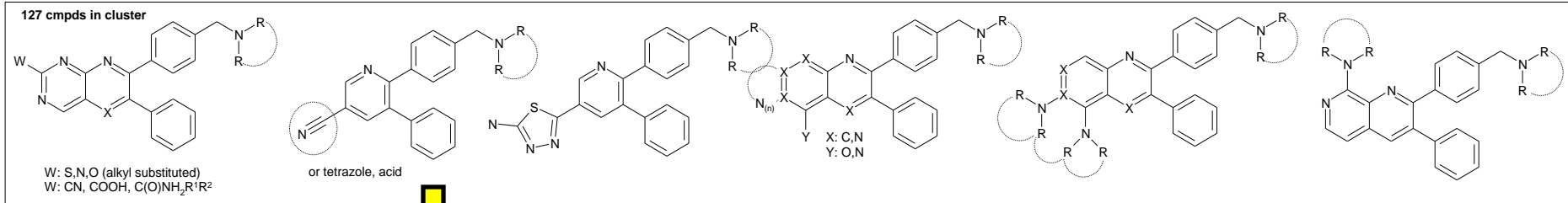
glucokinase inh



inhibitor

RAC-beta serine/threonine-protein kinase

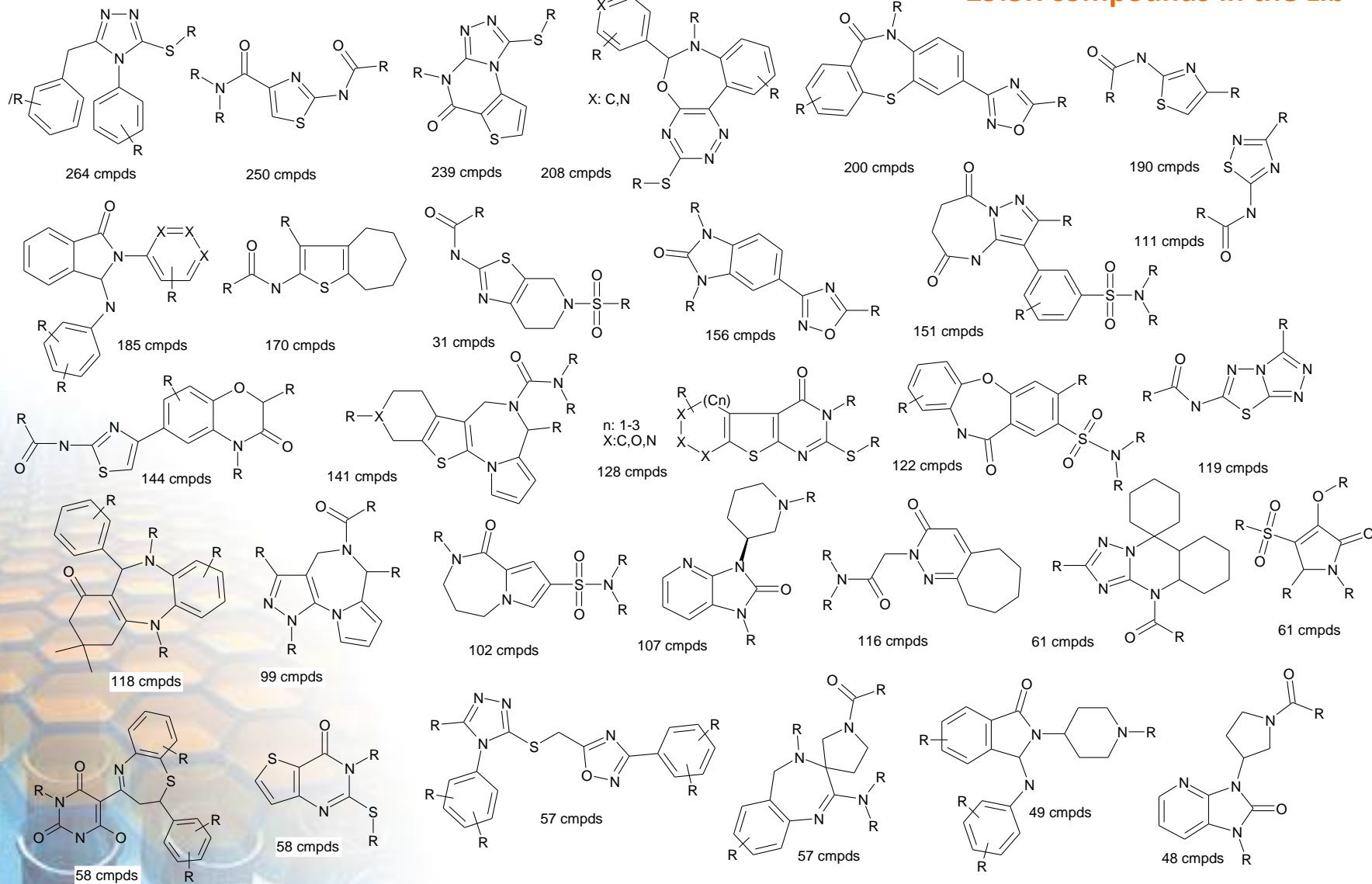
Dual specificity mitogen-activated protein kinase kinase 1



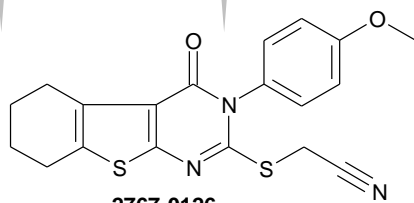
clusters, of total: **795**; av. cmpds per cluster: **38**; similarity threshold: **0.6**; min. cluster size: **5**; max. cluster size: **264**; number of singeltones: **0**

Representative examples

29.5K compounds in the Lib



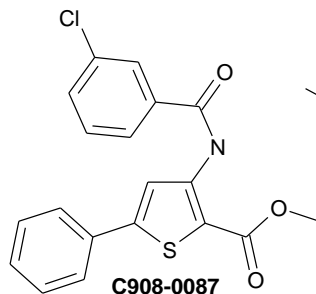
Representative examples of compounds from the focused lib



2767-0126

RIP1 kinase inhibitor

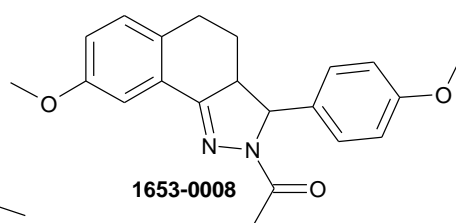
Degterev A, et al. Identification of RIP1 kinase as a specific cellular target of necrostatins. *Nat Chem Biol.* 2008 May;4(5):313-21.



C908-0087

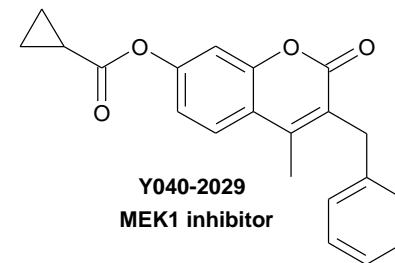
pyruvate kinase inhibitor

Abraham DJ, et al. US 6534501



1653-0008

RIP1 kinase inhibitor

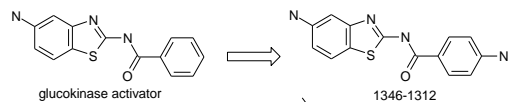


Y040-2029

MEK1 inhibitor

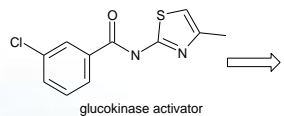
Han S, et al. Identification of coumarin derivatives as a novel class of allosteric MEK1 inhibitors. *Bioorg Med Chem Lett.* 2005 Dec 15;15(24):5467-73

Direct Analogues

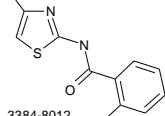


glucokinase activator

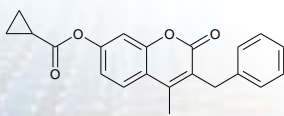
1346-1312



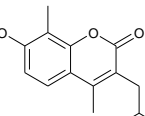
glucokinase activator



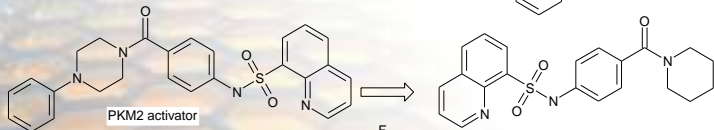
3384-8012



MEK1 inhibitor

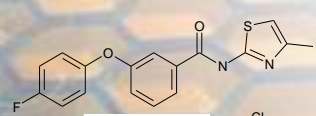


Y040-1980

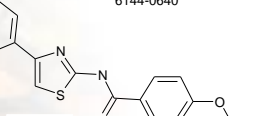


PKM2 activator

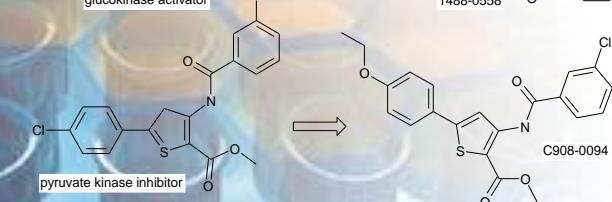
6144-0640



glucokinase activator

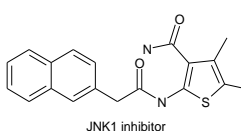


1488-0558

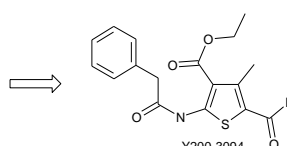


pyruvate kinase inhibitor

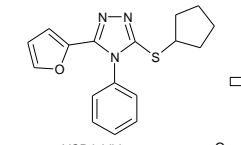
C908-0094



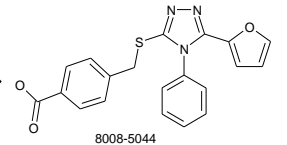
JNK1 inhibitor



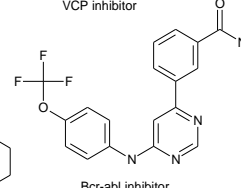
Y200-3094



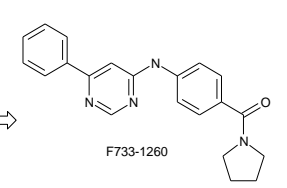
VCP inhibitor



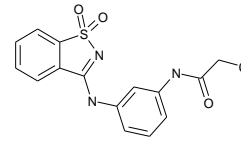
8008-5044



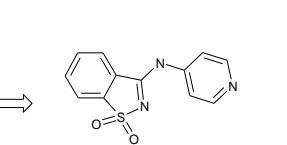
Bcr-abl inhibitor



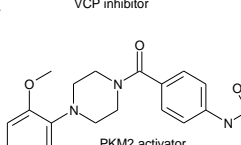
F733-1260



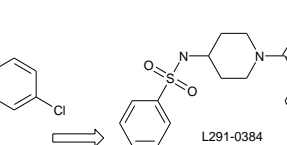
VCP inhibitor



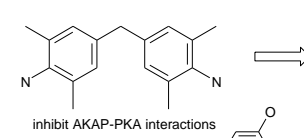
8019-0329



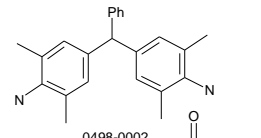
PKM2 activator



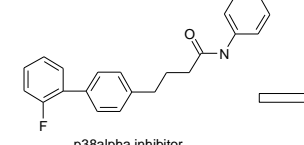
L291-0384



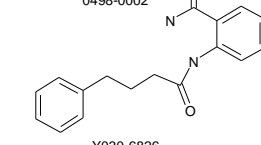
inhibit AKAP-PKA interactions



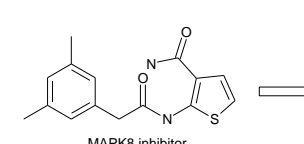
0498-0002



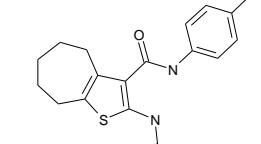
p38alpha inhibitor



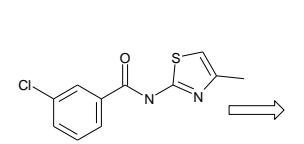
Y030-6826



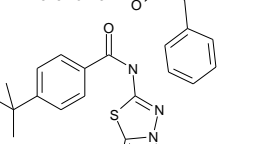
MAPK8 inhibitor



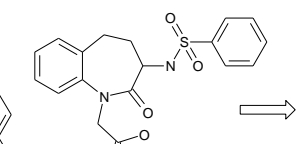
3261-0743



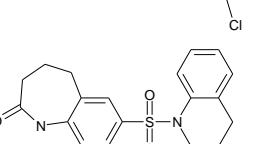
glucokinase activator



G952-2133

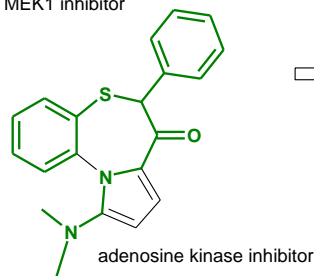
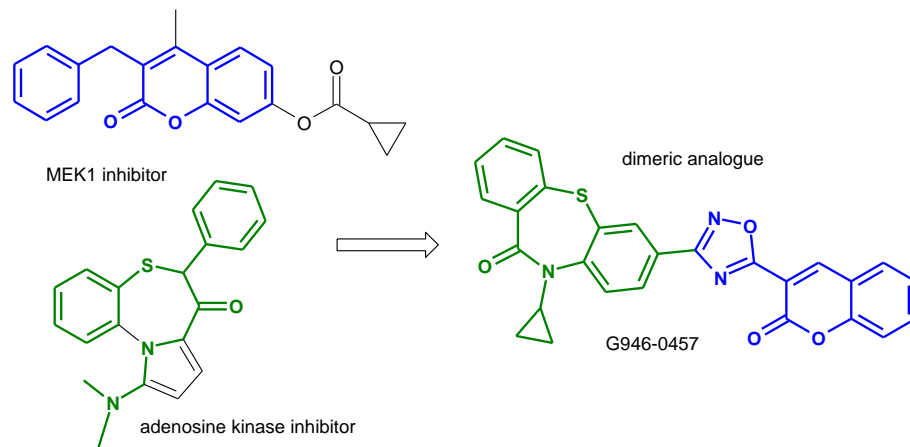
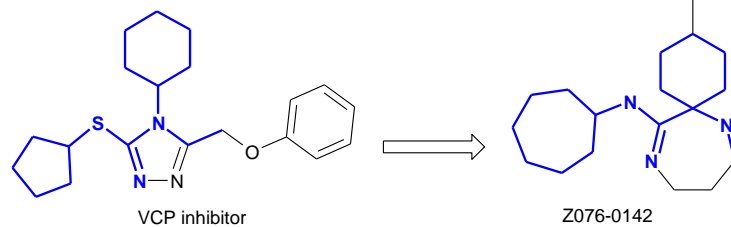
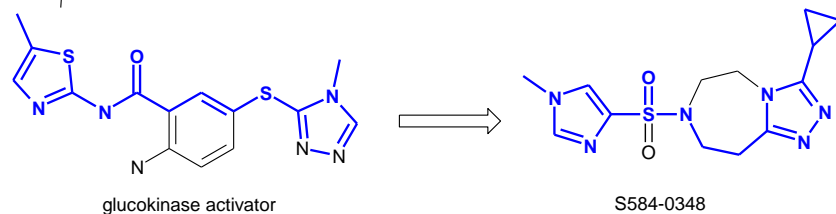
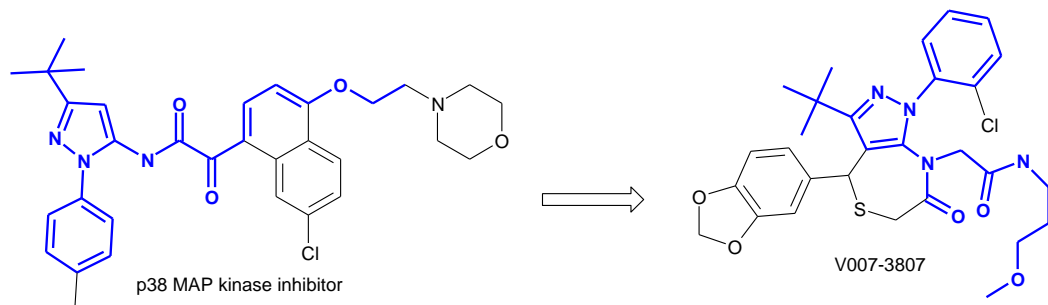
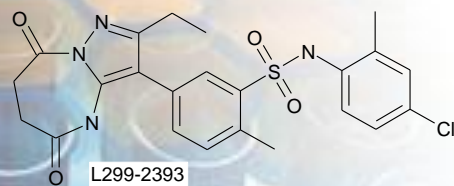
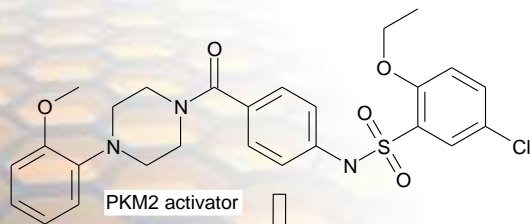
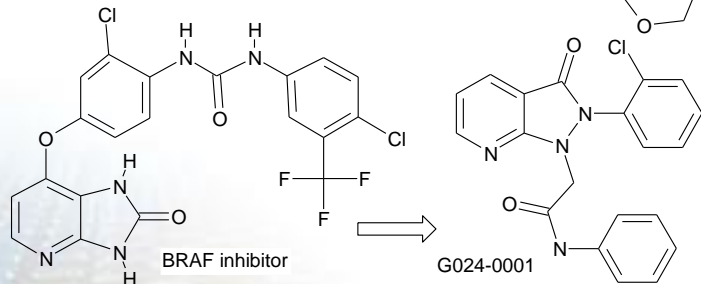
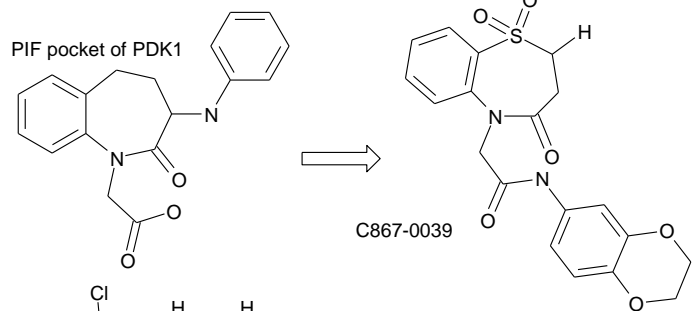
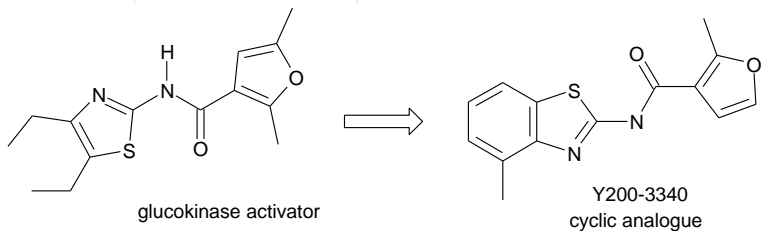


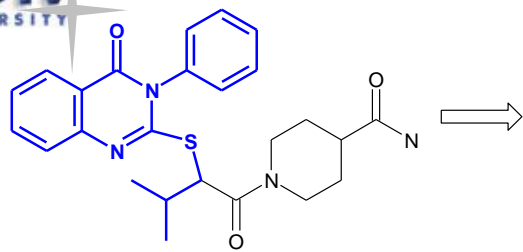
PIF pocket of PDK1



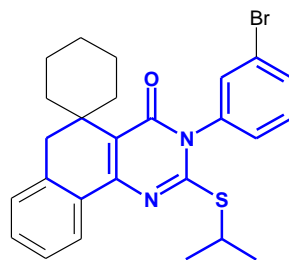
E977-0084

Non-trivial analogues

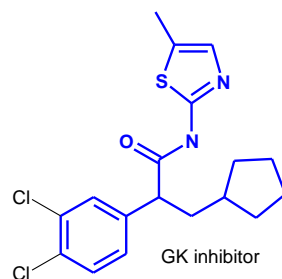




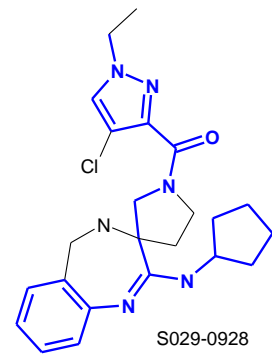
Chk1 kinase inhibitor



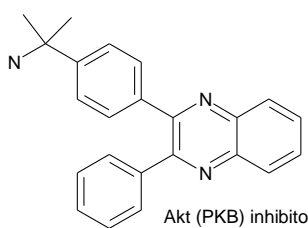
4159-0052



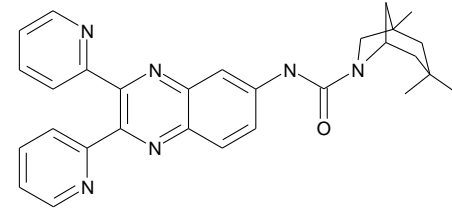
GK inhibitor



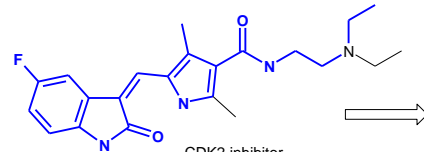
S029-0928



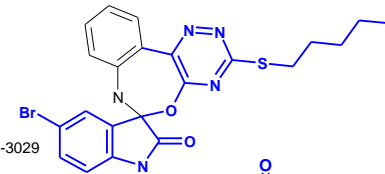
Akt (PKB) inhibitor



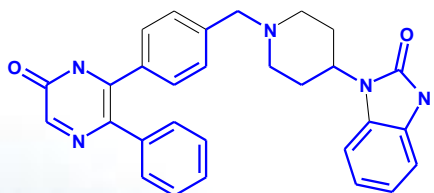
5408-3029



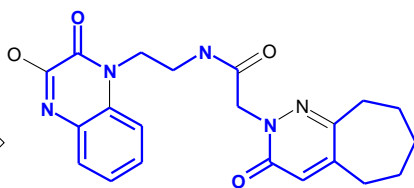
CDK2 inhibitor



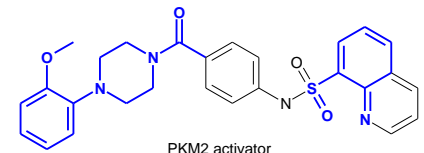
4896-3029



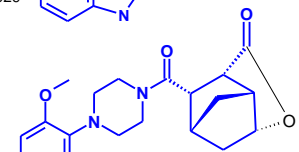
Akt (PKB) inhibitor



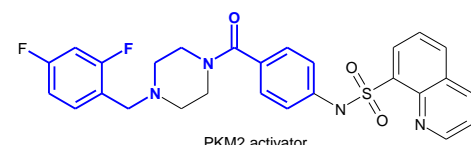
J102-0330



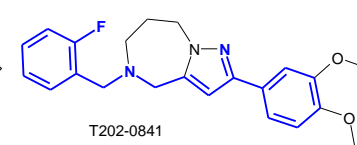
PKM2 activator



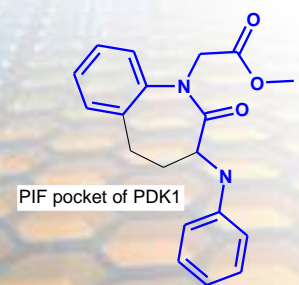
D127-0051



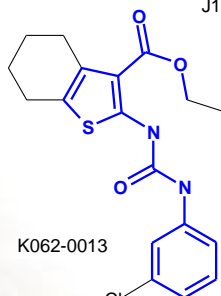
PKM2 activator



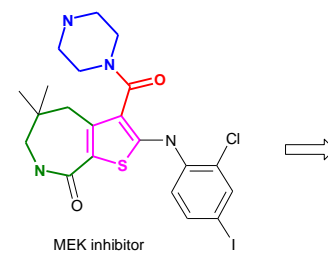
T202-0841



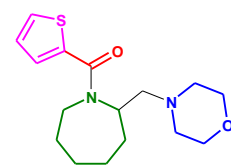
PIF pocket of PDK1



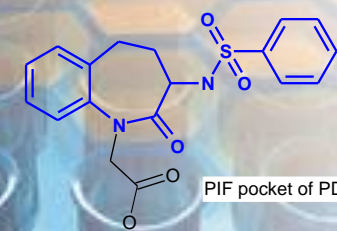
K062-0013



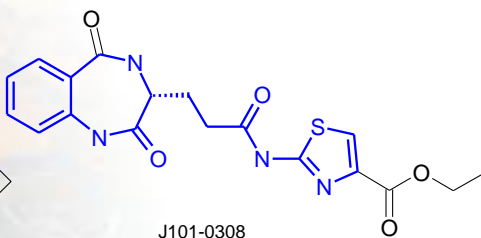
MEK inhibitor



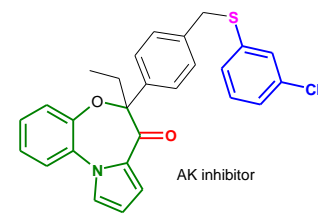
S534-0452



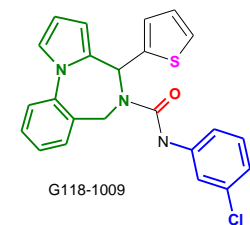
PIF pocket of PDK1



J101-0308



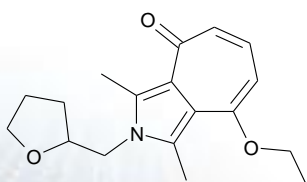
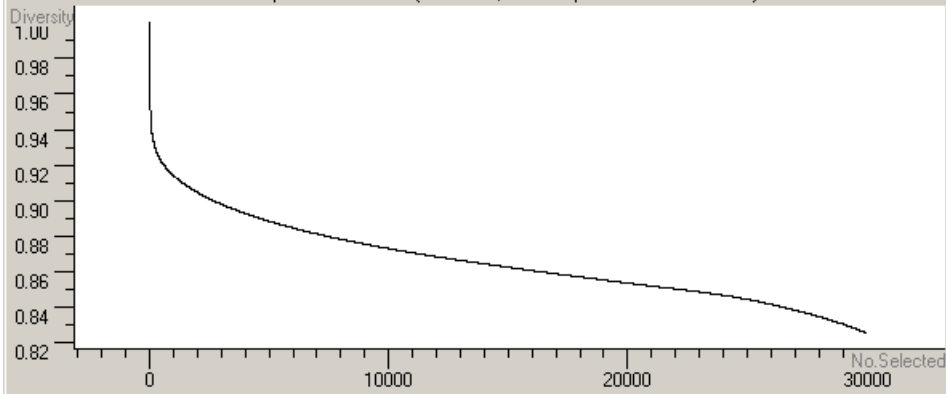
AK inhibitor



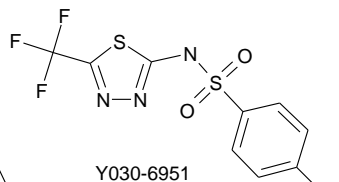
G118-1009

Dataset 30K, sorted by diversity

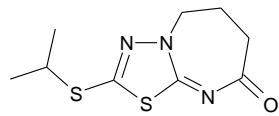
The sum of non-diagonal matrix elements is used as diversity measure. The cosine coefficient is used as similarity measure.
 The number of screens in dataset 30K: 8488 Calculation time: 0h:00m:21s
 Dataset 30K does not contain duplicated structures (as internal, also compared with Dataset 30K)



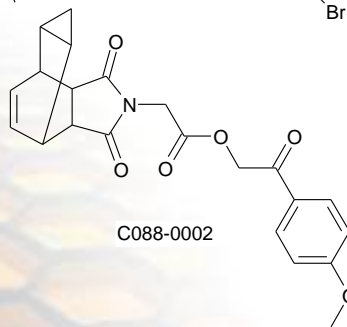
4463-0110



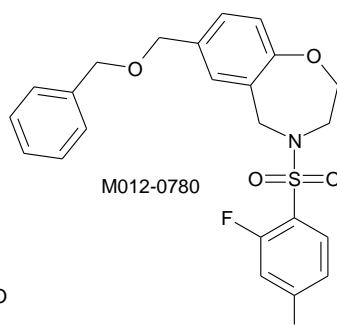
Y030-6951



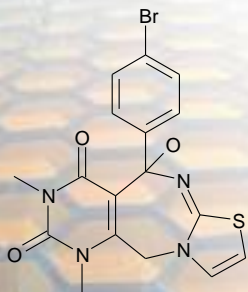
C244-0035



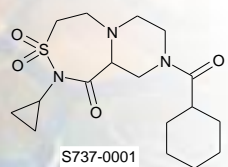
C088-0002



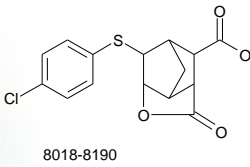
M012-0780



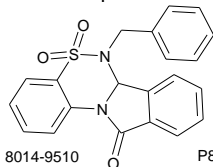
8017-6447



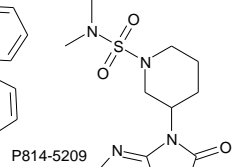
S737-0001



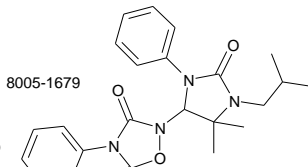
8018-8190



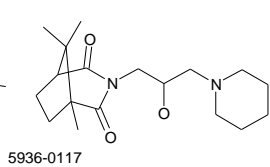
8014-9510



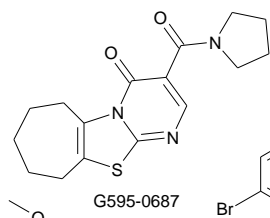
P814-5209



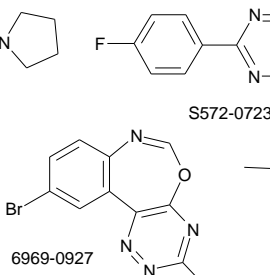
8005-1679



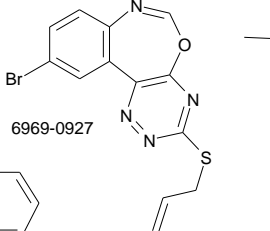
5936-0117



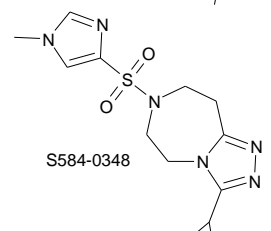
G595-0687



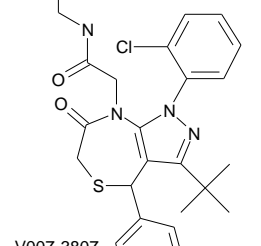
S572-0723



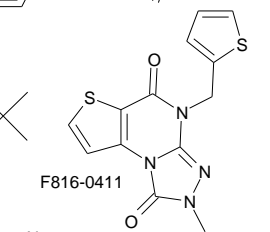
6969-0927



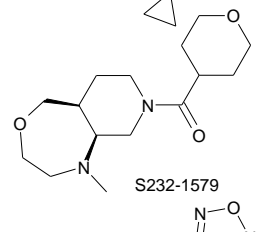
S584-0348



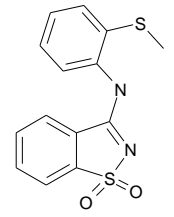
V007-3807



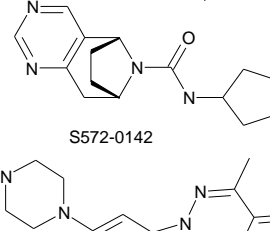
F816-0411



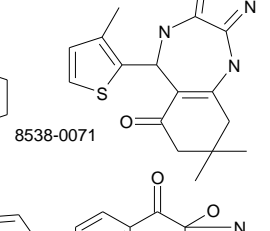
S232-1579



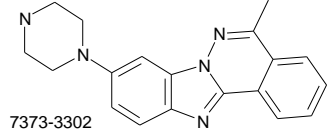
7380-0009



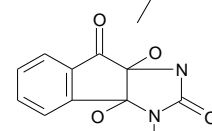
S572-0142



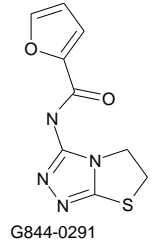
8538-0071



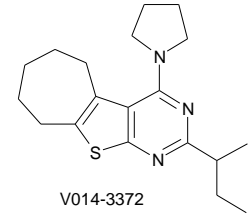
7373-3302



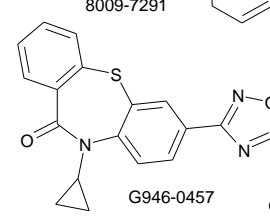
8009-7291



G844-0291

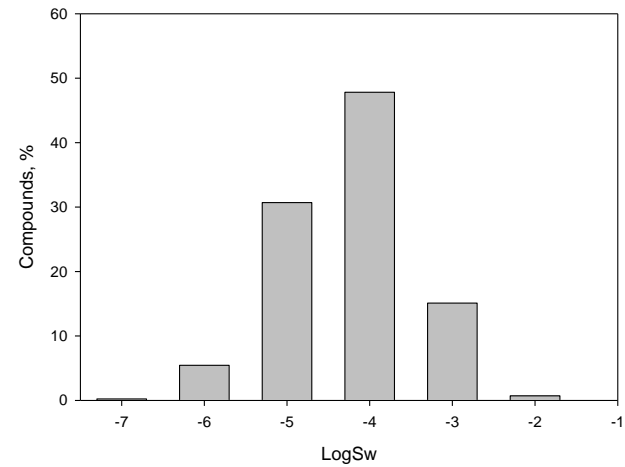
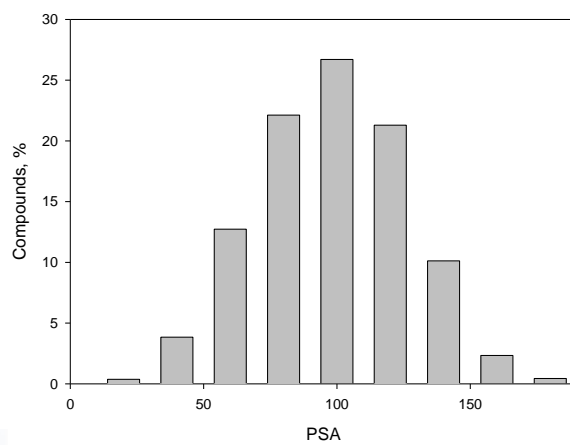
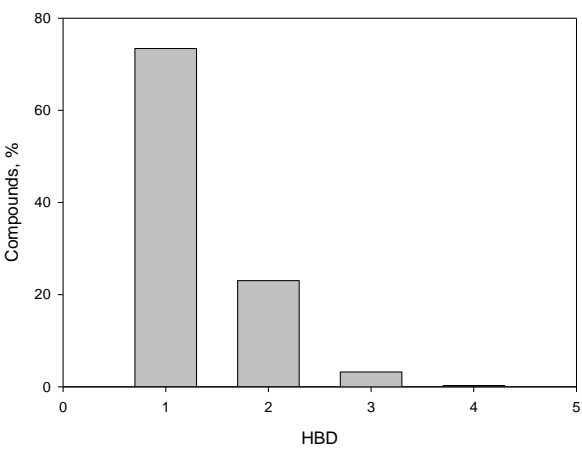
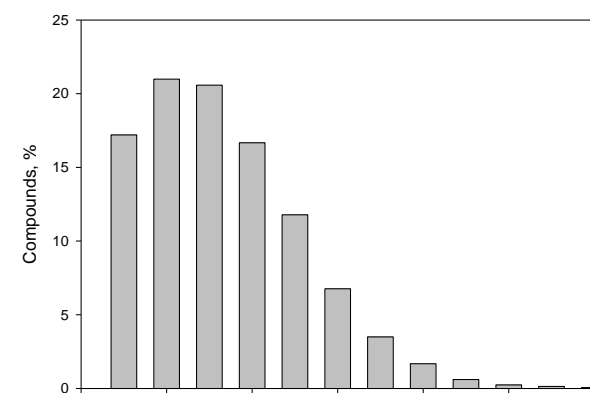
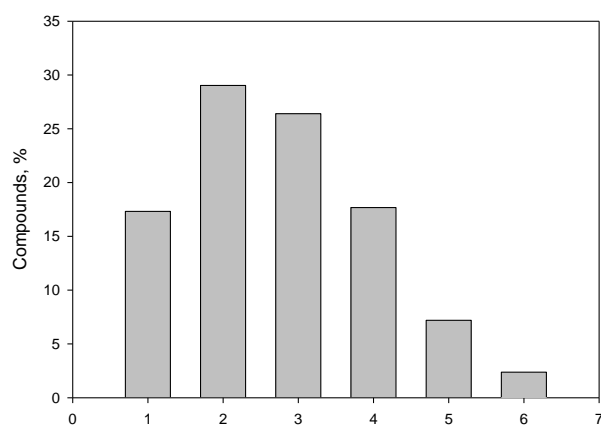
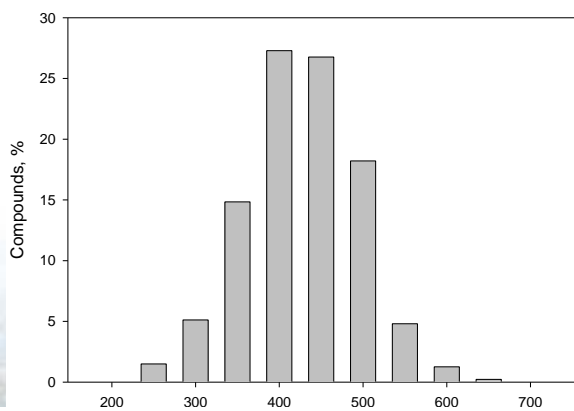
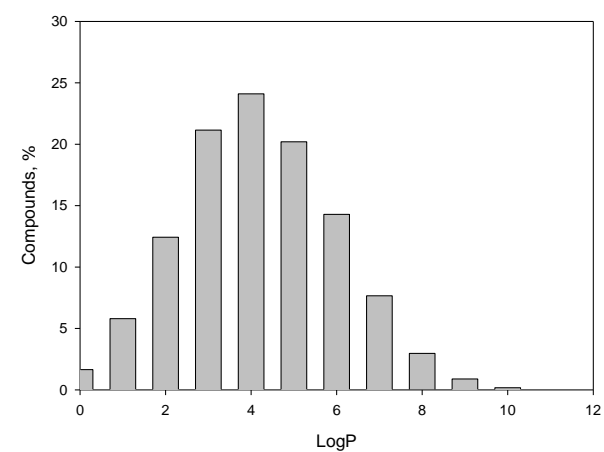
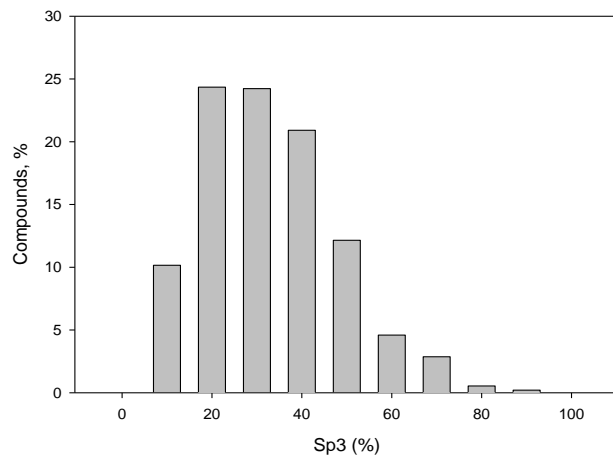


V014-3372



G946-0457

Property Space



Cluster representation

