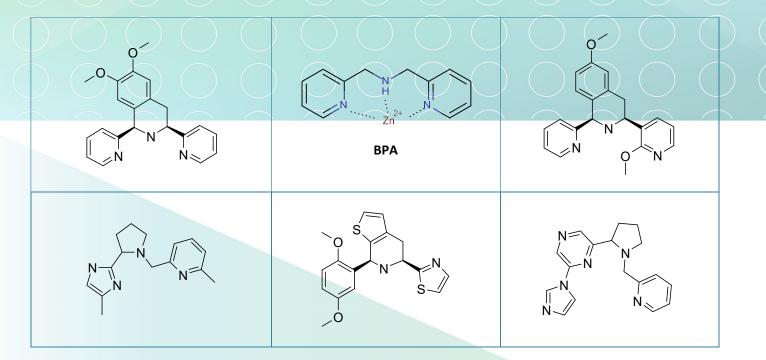


SL-43. State 1(T) inhibitors of activated Ras

Ras is a family of enzymes belonging to small GTPases, which are expressed in all cells and organs and are involved in transmitting signals within cells. Mutations in ras genes can cause the production of permanently activated Ras proteins and ultimately lead to cancer [1]. Inhibition of oncogenic Ras signaling is considered to be an efficient strategy in cancer therapy [2].

Two conformational states of activated Ras have been identified: state 1(T) and state 2(T). Selective stabilization of state

1(T) by small molecules represents a novel strategy for the inhibition of oncogenic Ras signaling [3]. It has been shown that Metal (II) cyclens and Zn²⁺ coordinating bis(2-picolyl)amines (BPA) can recognize the conformational state 1(T) and inhibit the Ras-Raf interaction - an important regulator of cell division [4]. At ASINEX we have identified several rigid analogs of BPA that are able to coordinate with Metal(II) ions and can therefore be exploited as chemical probes for Ras-related research.



Signature Library 43

Formats	Supplementary Information
80 compounds per plate	SL#43_State 1(T) inhibitors of activated Ras.sdf
0.1 mg; 1 mg; 2 mg dry film/powder	
0.1 µmol; 1 µmol DMSO solutions	

References:

- 1. J. Biochem. 2015;158(2):91-99 doi:10.1093/jb/mvv060.
- 2. Nature Chemical Biology 10, 613–622 (2014) doi:10.1038/nchembio.1560
- 3. The Enzymes, V. 33, 2013, 69–94, doi: 10.1016/B978-0-12-416749-0.00004-X
- 4. Angew. Chem. Int. Ed. 2012, 51, 1 - 6 doi: 10.1002/anie.201204148

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