

## **Data Sheet**

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**Product Name** : SMN antagonist 1

 Cat. No.
 : PC-49646

 CAS No.
 : 445463-11-6

 Molecular Formula : C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>

 Molecular Weight : 188.27

Target : SMN2 Modulator
Solubility : 10 mM in DMSO



## **Biological Activity**

SMN antagonist 1 (Compound 1) is a small molecule antagonist of **Survival of motor neuron (SMN)**, preferentially binds to SMN (Kd=2.6 uM) among assayed methylarginine or methyllysine binders, disrupts the SMN-RNAP II interaction. SMN antagonist 1 binds tighly to methylarginine binding Tudor domains of SMN, SMNDC1, and TDRD3 than to the methyllysine binding Tudor domain of UHRF1\_TTD (Kd=16 uM).

SMN antagonist 1 binds to the aromatic cage of SMN specifically.

SMN antagonist 1 disrupts SMN gene occupancy and lead to RNAP II pause, causes R-loop accumulation in HEK293 cells as detected by immunofluorescence staining.

## References

Liu Y, et al. *Nat Commun.* 2022 Sep 16;13(1):5453.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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