

# **Product Introduction**

## RepSox

RepSox is a potent and selective inhibitor of the  $TGF\beta R-1/ALK5$  with IC50 of 23 nM and 4 nM for ATP binding to ALK5 and ALK5 autophosphorylation, respectively.

#### Technical Data:

Molecular Weight (MW):	287.32	
Formula:	C <sub>17</sub> H <sub>13</sub> N <sub>5</sub>	
Solubility (25°C)	DMSO 57 mg/mL	
* <1 mg/ml means slightly	Water <1 mg/mL	
soluble or insoluble:	Ethanol <1 mg/mL	
Purity:	>98%	
Storage:	3 years -20°C Powder	
	6 months-80℃in DMSO	
CAS No.:	446859-33-2	

## **Biological Activity**

RepSox inhibits ATP binding to ALK5 and ALK5 autophosphorylation with IC50 of 23 nM and 4 nM, respectively. RepSox inhibits TGF- $\beta$  induced cellular PAI-1 luciferase activity with IC50 of 18 nM. <sup>[1]</sup> RepSox is able to successfully replace Sox2 in reprogramming by inhibiting transforming growth factor- $\beta$  (Tgf- $\beta$ ) signaling, which in turn induces Nanog expression. Effect of RepSox inducing reprogramming does not require chromatin remodeling. RepSox is found to be efficient at generating iPSCs. <sup>[2]</sup>

RepSox is able to be contribute to forming chimeric embryos in vivo when injected into blastocysts. A

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one-day treatment with RepSox is sufficient to replace transgenic Sox2. [2]

## References

- [1] Gellibert F, et al. J Med Chem, 2004, 47(18), 4494-4506.
- [2] Ichida JK, et al. Cell Stem Cell, 2009, 5(5), 491-503.



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