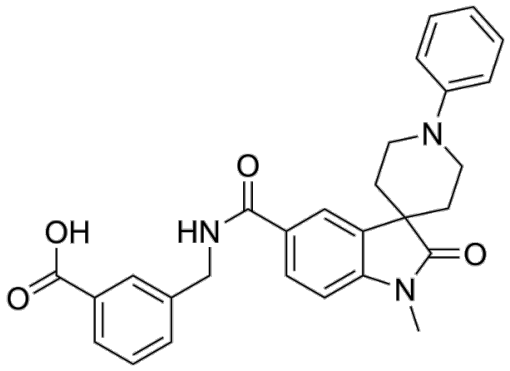
Product Data Sheet

Product Name: SA91-0178
Cat. No.: GC81697

Chemical Properties

Cas. No.	2244341-81-7		
Formula	$C_{28}H_{27}N_3O_4$	M.Wt	469.53
Solubility	DMSO: 100 mg/mL (212.98 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

SA91-0178 is a METTL1 inhibitor. SA91-0178 inhibits m 7 G methylation of RNA, reduces SARM1 stability, mitigates NAD + depletion and metabolic reprogramming in macrophages. SA91-0178

demonstrates excellent protective efficacy against multiple organ injury in cecal ligation and puncture (CLP)-induced and ischemia/reperfusion (I/R)-induced mice. SA91-0178 can be used for the study of systemic inflammatory diseases [1].

In Vivo, SA91-0178 (5-15 mg/kg, ip, once) demonstrates protective effects against multiple organ injury in cecal ligation and puncture (CLP)-induced septic C57BL/6 mice, while failing in Lyz2creMettl1fl/fl mice[1].

In Vitro, SA91-0178 inhibits LPS -induced TNF-α and IL-1β secretion in mouse bone marrow-derived macrophages (BMDMs) without cytotoxicity[1]. SA91-0178 attenuates LPS-induced m7G modification in RAW264.7 cells and human peripheral blood mononuclear cell (PBMC)-derived macrophages[1]. SA91-0178 reduces luciferase activity of wild-type SARM1 3'UTR reporter in shMETTL1-treated THP-1-derived macrophages[1].

References:
[1]. Hou C, et al. METTL1-mediated m7G methylation of Sarm1 mRNA promotes macrophage inflammatory responses and multiple organ injury. Sci Immunol. 2025 Sep 5;10(111):eadv4810.