

Product Data Sheet

Product Name: SA91-0178

Cat. No.: GC81697

Chemical Properties

Cas. No. 2244341-81-7

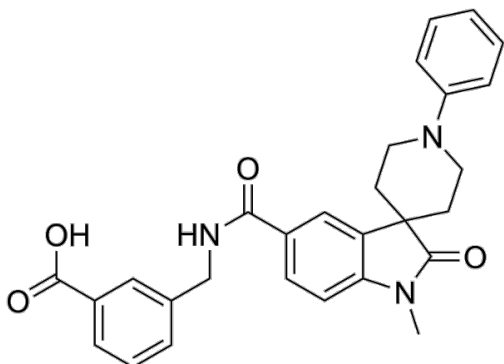
Formula $C_{28}H_{27}N_3O_4$ M.Wt 469.53

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 m7G methylation of RNA, reduces SARM1 stability, mitigates NAD+ depletion and metabolic reprogramming in macrophages. SA91-0178

Caution: Product has not been fully validated for medical applications. For research use only.

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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-1 β 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.

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