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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SM-276001

Cat. No.: HY-123291

CAS No.: 473930-22-2

Molecular Formula: $C_{16}H_{21}N_7O$

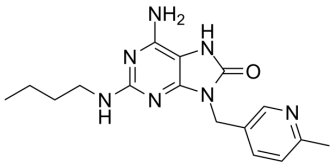
Molecular Weight: 327.38

Target: Toll-like Receptor (TLR); IFNAR

Pathway: Immunology/Inflammation

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (381.82 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.0546 mL	15.2728 mL	30.5455 mL
5 mM	0.6109 mL	3.0546 mL	6.1091 mL
10 mM	0.3055 mL	1.5273 mL	3.0546 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (6.35 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SM-276001 is a potent selective TLR7 agonist that can induce antitumor immune responses. SM-276001 is an orally active interferon (IFN) inducer[1][2].

IC_{50} & Target

TLR7; IFN[1][2]

In Vitro

SM-276001 (1 nM-10 μM) dose-dependently activates NF-κB through human TLR7[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

SM-276001 demonstrates potent IFN-inducing activity at a dose of 0.1 mg/kg by oral administration in mice[1].

Oral administration of SM-276001, leads to the induction of an inflammatory cytokine and chemokine milieu and to the

activation of a diverse population of immune effector cells including T and B lymphocytes, NK and NKT cells[2].
SM-276001 (3 mg/kg PO biweekly) significantly inhibits tumor growth in the Renca renal cell cancer and CT26 colorectal models[2].
SM-276001 (orally; 0.1, 1 or 10 mg/kg) leads to the activation of a diverse population of spleen-resident immune effector cells in Balb/c and C57BL/6J mice. When administered at 1 mg/kg or greater, the plasma concentration of SM-276001 exceeds the MEC of 30 nM[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL/6 and B6C3F1 mice bearing Renca or CT26 tumors[2]
Dosage:	3 mg/kg
Administration:	Oral administration twice weekly for 25 days
Result:	Significantly reduced disease burden in mice bearing either Renca or CT26 tumors.

REFERENCES

[1]. Isobe Y, et al. Synthesis and biological evaluation of novel 9-substituted-8-hydroxyadenine derivatives as potent interferon inducers. J Med Chem. 2006 Mar 23;49(6):2088-95.

[2]. Koga-Yamakawa E, et al. Intratracheal and oral administration of SM-276001: a selective TLR7 agonist, leads to antitumor efficacy in primary and metastatic models of cancer. Int J Cancer. 2013 Feb 1;132(3):580-90.

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