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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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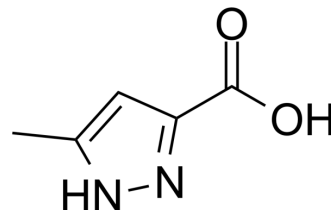
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AS057278

Cat. No.:	HY-33009
CAS No.:	402-61-9
Molecular Formula:	C ₅ H ₆ N ₂ O ₂
Molecular Weight:	126.11
Target:	Others
Pathway:	Others
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (792.96 mM)

* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		7.9296 mL	39.6479 mL	79.2959 mL
	5 mM		1.5859 mL	7.9296 mL	15.8592 mL
	10 mM		0.7930 mL	3.9648 mL	7.9296 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (19.82 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (19.82 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (19.82 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AS057278 is a potent, selective, orally active and blood-brain barrier (BBB) penetrant non-peptidic D-amino acid oxidase (DAAO) inhibitor with an IC₅₀ value of 0.91 μM and EC₅₀ of 2.2-3.95 μM. AS057278 can normalize phencyclidine (PCP)-induced prepulse inhibition in mice. AS057278 can be used for researching schizophrenia^[1].

IC₅₀ & Target

IC₅₀: 0.91 μM (DAAO)^[1]

In Vivo

AS057278 (PO; 20 mg/kg b.i.d for 28 days; 80 mg/kg single dosage) normalizes phencyclidine (PCP)-induced prepulse inhibition^[1].

AS057278 (10 mg/kg; PO and IV; single dosage) exhibits good pharmacokinetic effects^[1].

Pharmacokinetic Parameters of AS057278 in male Sprague-Dawley rats^[1].

	IV (10 mg/kg)	PO (10 mg/kg)
C ₀ (ng/mL)	100,557.3	
C _{max} (ng/mL)	73,559.8	8088.8
t _{max} (h)	0.083	1
C _Z (ng/mL)	26.8	40.5
t _Z (h)	24	24
AUC _Z (ng/mL·h)	45,596.2	18,254.4
λ _Z (h ⁻¹)	0.124	0.096
AUC (ng/mL·h)	45,810.9	18,649.9
V _Z (L/kg)	1.76	
V _{SS} (L/kg)	0.24	
CL (L/kg/h)	0.22	
MRT (h)	1.087	
F		0.407

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

Animal Model:	Males C57BL/6J mice ^[1]
Dosage:	80 mg/kg, 20 mg/kg
Administration:	PO; 20 mg/kg b.i.d for 28 days; 80 mg/kg single dosage
Result:	Normalized phencyclidine (PCP)-induced prepulse inhibition after acute (80 mg/kg) and chronic (20 mg/kg b.i.d.) oral administration in mice.
Animal Model:	Male Sprague-Dawley rats ^[1]
Dosage:	10 mg/kg
Administration:	PO and IV; single dosage (Pharmacokinetics Analysis)

	Result:	Exhibited good pharmacokinetic effect.
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REFERENCES

[1]. Adage T, et al. In vitro and in vivo pharmacological profile of AS057278, a selective d-amino acid oxidase inhibitor with potential anti-psychotic properties. Eur Neuropsychopharmacol. 2008;18(3):200-214.

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

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