Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Monepantel

Catalog No: tcsc6054

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Specifications

CAS No:
887148-69-8

Formula:
$C_{20}H_{13}F_6N_3O_2S$

Pathway:
Neuronal Signaling;Membrane Transporter/Ion Channel

Target:
nAChR;nAChR

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 100 mg/mL (211.24 mM)

Alternative Names:
AAD1566

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Observed Molecular Weight:
473.39

Product Description

Monepantel is organic anthelmintic, and acts as a positive allosteric modulator of a nematode-specific clade of nicotinic acetylcholine receptor (**nAChR**) subunits.

In Vitro: The metallocenyl analogues of monepantel shows nematocidal activity[1]. Monepantel (25 μM) induces accumulation of acidic vacuoles. Ovarian cancer cell lines are highly sensitive to Monepantel with IC_{50} values of 7.2±0.2 μM (OVCAR-3) and 10.5±0.4 μM (A2780). Monepantel (0, 10 and 25 μM) induces autophagosome formation in these cancer cell lines. Monepantel (0, 10 and 25 μM) exhibits a markedly reduced level of punctate staining indicating the suppression of phosphorylated mTOR at Ser2448. Monepantel also decreases the expression of phosphorylated Raptor at Ser792, which is one of the mTORC1 coMonepantelex members[2]. Monepantel (250 μg/mL) leads multiple ABC transporter genes higher transcription in both worm isolates. Larvae exposed to monepantel at 250 μg/mL shows an increased efflux of rhodamine-123 and a proportion of the larval population shows an ability to subsequently tolerate higher concentrations of IVM in migration assays[3].

In Vivo: Monepantel (10 μM) significantly increased all CYP-related activities and CYP3A24 mRNA in sheep[4].