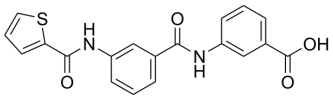
CZL80

Cat. No.:	HY-131204
CAS No.:	313482-91-6
Molecular Formula:	$C_{19}H_{14}N_2O_4S$
Molecular Weight:	366.39
Target:	Caspase
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CZL80, a brain-penetrable caspase-1 inhibitor with an IC_{50} of 0.01 μM, could be used in the study of febrile seizures and later enhanced epileptogenic susceptibility[1].
IC_{50} & Target	Caspase-1 0.01 μM (IC_{50})

In Vivo

CZL80 (7.5 mg/kg, i.v., qod) markedly reduces neuronal excitability and incidence of FS generation, and, in adult mice, relieved later enhanced epileptogenic susceptibility[1].

CZL80 delayed-administration is a competent to attenuate the progressive neurological dysfunction induced by photothrombosis[2].

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

Animal Model:	Male C57BL/6 mice and Caspase-1 gene knockout (Caspase-$1^{-/-}$) mice weighing 23-26 g (9-10 weeks old)[2].
Dosage:	10, 30 mg/kg/d, 7 days.
Administration:	i.p.
Result:	Rescued motor dysfunction after photothrombotic stroke in mice.

Animal Model:	Mice pups of caspase-1 knockout (Casp$1^{-/-}$, RRID:IMSR_JAX:004947) and littermate controls (wild-type [WT], Casp$1^{+/+}$)[1].
Dosage:	0.0075, 0.075, 0.75 and 7.5 mg/kg (2% DMSO in saline), qod (every other day).
Administration:	Intravenously injected.
Result:	Reduced seizure incidence, prolonged seizure latency and increased threshold to FS generation in a dose-dependent manner.

REFERENCES

[1]. Yangshun Tang, et al. Structure-based discovery of CZL80, a caspase-1 inhibitor with therapeutic potential for febrile seizures and later enhanced epileptogenic susceptibility. Br J Pharmacol. 2020 Aug;177(15):3519-3534.

[2]. Ling Pan, et al. Novel Caspase-1 inhibitor CZL80 improves neurological function in mice after progressive ischemic stroke within a long therapeutic time-window. Acta Pharmacol Sin. 2022 Nov;43(11):2817-2827.

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