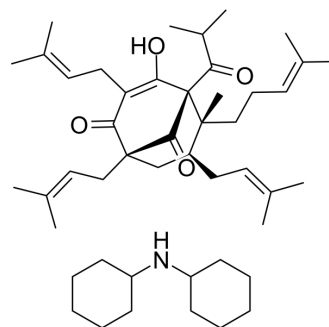


Hyperforin dicyclohexylammonium salt

Cat. No.:	HY-116330A
CAS No.:	238074-03-8
Molecular Formula:	C ₄₇ H ₇₅ NO ₄
Molecular Weight:	718.1
Target:	TRP Channel; Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (69.63 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	1.3926 mL	6.9628 mL	13.9256 mL
				5 mM	0.2785 mL	1.3926 mL	2.7851 mL
10 mM				0.1393 mL	0.6963 mL	1.3926 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: ≥ 2.5 mg/mL (3.48 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (3.48 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Hyperforin dicyclohexylammonium salt (Hyperforin DCHA) is a transient receptor canonical 6 (TRPC6) channels activator. Hyperforin dicyclohexylammonium salt modulates Ca ²⁺ levels by activating Ca ²⁺ -conducting non-selective canonical TRPC6 channels. Hyperforin dicyclohexylammonium salt also shows diverse pharmacological activities including anti-depression, anti-tumor, anti-dementia, anti-diabetes. Hyperforin dicyclohexylammonium salt modulates γδ T cells to secrete IL-17α, improves Imiquimod (HY-B0180)-induced psoriasis-like mice model ^{[1][2][3][4][5]} .
IC ₅₀ & Target	TRPC6 ^[1]
In Vitro	Hyperforin dicyclohexylammonium salt has a multi-directional mechanism of action. It blocks conductance of ligand-gated (GABA, NMDA, and AMPA receptors) and voltage-gated channels (Ca ²⁺ , K ⁺ , and Na ⁺) ^[2] . Hyperforin dicyclohexylammonium salt (0.1, 1, 10 μM; 2 h) reduces the expression and secretion of IL-17A in γδ T cell in vitro

cultured murine splenic $\gamma\delta$ T cells^[3].

Hyperforin dicyclohexylammonium salt (0.1, 1, 10 μ M; 2 h) suppresses phosphorylation of MAPK and STAT3 pathways in TNF- α stimulated HaCaT cells^[3].

Hyperforin dicyclohexylammonium salt (IC_{50} =3.7 μ mol/L) inhibits the microvascular tube formation and proliferation of HDMEC in a dose-dependent manner without toxic effects^[4].

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

Western Blot Analysis^[3]

Cell Line:	HaCaT cells
Concentration:	0.1, 1, 10 μ M; with or without 10, 20 ng/mL TNF- α
Incubation Time:	2 hours
Result:	Reduced the expressions of p-p38, p-ERK, p-JNK, and p-STAT3, especially at the dosage of 10 μ M.

In Vivo

Hyperforin dicyclohexylammonium salt (5 mg/kg; i.p.; once daily for 7 d) ameliorates [Imiquimod](#) (HY-B0180)-induced psoriatic skin lesion in mice, as well as inhibiting inflammatory cell infiltration and inflammatory cytokines release^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	IMQ-induced psoriasis-like mice model ^[3]
Dosage:	5 mg/kg
Administration:	Intraperitoneal injection; once daily for 7 days
Result:	Significantly ameliorated skin lesion throughout the treatment period, demonstrated by the reduced severity score of skin inflammation. Suppressed infiltration of CD3+ T cells and downregulated expression of IL1, IL6, IL23, IL17a, IL22, antimicrobial peptides (AMPs) in the skin lesion.

CUSTOMER VALIDATION

- Transfus Med. 2023 Feb 6.

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REFERENCES

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- [3]. Li XX, et al. Hyperforin: A natural lead compound with multiple pharmacological activities. *Phytochemistry.* 2023 Feb;206:113526.
- [4]. Heiser JH, et al. TRPC6 channel-mediated neurite outgrowth in PC12 cells and hippocampal neurons involves activation of RAS/MEK/ERK, PI3K, and CAMKIV signaling. *J Neurochem.* 2013 Nov;127(3):303-13.
- [5]. Pochwat B, et al. Hyperforin Potentiates Antidepressant-Like Activity of Lanicemine in Mice. *Front Mol Neurosci.* 2018 Dec 12;11:456.

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

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