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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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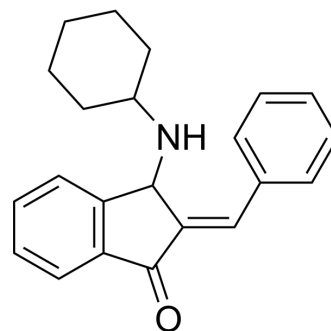
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BCI

Cat. No.:	HY-115502
CAS No.:	1245792-51-1
Molecular Formula:	C ₂₂ H ₂₃ NO
Molecular Weight:	317.43
Target:	Phosphatase
Pathway:	Metabolic Enzyme/Protease
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 (393.79 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		3.1503 mL	15.7515 mL	31.5030 mL
		5 mM		0.6301 mL	3.1503 mL	6.3006 mL
		10 mM		0.3150 mL	1.5752 mL	3.1503 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 (6.55 mM); Suspended solution; Need ultrasonic					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (6.55 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	BCI ((E)-BCI) is a DUSP6 (dual specificity phosphatase 6) inhibitor. BCI shows anti-inflammatory activity and decreases reactive oxygen species (ROS) production. BCI can be used in inflammatory disease research ^{[1][2]} .
In Vitro	BCI (100 ng/mL; 24 h) downregulates the expression of DUSP6 in RAW264.7 macrophage cells^[2]. ?BCI (0-1 nM; 24 h) inhibits the expression of IL-1β and IL-6 in lipopolysaccharide- (LPS-) activated macrophages^[2]. ?BCI (0-4 nM; 24 h) decreases ROS production and activates the Nrf2 Pathway in LPS-activated macrophages^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis^[2]

Cell Line:	RAW264.7 macrophage cells
Concentration:	100 ng/mL
Incubation Time:	24 hours
Result:	Showed DUSP6 protein downregulation.

RT-PCR^[2]

Cell Line:	RAW264.7 macrophage cells
Concentration:	0-1 nM
Incubation Time:	24 hours
Result:	Inhibited the expression of IL-1 β and IL-6 mRNA in LPS-activated macrophages.

CUSTOMER VALIDATION

- Phytother Res. 2023 Mar 3.
- Neural Regen Res. 2023.
- Cells. 2022 Feb 19;11(4):732.
- Cancers (Basel). 2023 Sep 6, 15(18), 4442.
- Development. 2023 Feb 13;dev.201090.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Zhang F, et al. DUSP6 Inhibitor (E/Z)-BCI Hydrochloride Attenuates Lipopolysaccharide-Induced Inflammatory Responses in Murine Macrophage Cells via Activating the Nrf2 Signaling Axis and Inhibiting the NF- κ B Pathway. Inflammation. 2019 Apr;42(2):672-681.

[2]. Korotchenko VN, et al. In vivo structure-activity relationship studies support allosteric targeting of a dual specificity phosphatase. Chembiochem. 2014 Jul 7;15(10):1436-45.

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

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