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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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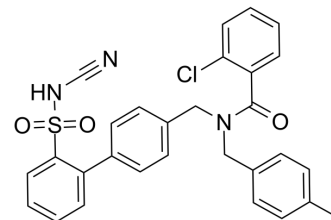
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S0859

Cat. No.:	HY-15529
CAS No.:	1019331-10-2
Molecular Formula:	C ₂₉ H ₂₄ ClN ₃ O ₃ S
Molecular Weight:	530.04
Target:	Na ⁺ /HCO ₃ ⁻ Cotransporter
Pathway:	Membrane Transporter/Ion Channel
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 : ≥ 100 mg/mL (188.67 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.8867 mL	9.4333 mL	18.8665 mL
	5 mM		0.3773 mL	1.8867 mL	3.7733 mL
	10 mM		0.1887 mL	0.9433 mL	1.8867 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 (4.72 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (4.72 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.72 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

S0859 is a selective, high-affinity generic Na⁺/HCO₃⁻ transporter (NBC) inhibitor. S0859 reversibly inhibits NBC-mediated intracellular pH (pHi) recovery (K_i=1.7 μM, full inhibition at approximately 30 μM).

IC₅₀ & Target

NBC^[1]

In Vitro

Treatment with NBC inhibitor S0859 significantly increased caspase-3 activity and elevated the number of apoptotic EC.

S0859 is potentially important for probing the transporter's functional role in heart and other tissues^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Larsen AM, Krogsgaard-Larsen N, Lauritzen G, et al. Gram-scale solution-phase synthesis of selective sodium bicarbonate co-transport inhibitor S0859: in vitro efficacy studies in breast cancer cells. *ChemMedChem*. 2012 Oct;7(10):1808-14.
- [2]. Lauritzen G, Stock CM, Lemaire J, et al. The Na⁺/H⁺ exchanger NHE1, but not the Na⁺, HCO₃⁻ cotransporter NBCn1, regulates motility of MCF7 breast cancer cells expressing constitutively active ErbB2. *Cancer Lett*. 2012 Apr 28;317(2):172-83.
- [3]. Kumar S, Flacke JP, Kostin S, et al. SLC4A7 sodium bicarbonate co-transporter controls mitochondrial apoptosis in ischaemic coronary endothelial cells. *Cardiovasc Res*. 2011 Feb 1;89(2):392-400.
- [4]. Ch'en FF, Villafuerte FC, Swietach P, et al. S0859, an N-cyanosulphonamide inhibitor of sodium-bicarbonate cotransport in the heart. *Br J Pharmacol*. 2008 Mar;153(5):972-82.
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Caution: Product has not been fully validated for medical applications. For research use only.

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