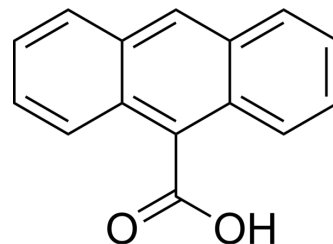


Anthracene-9-carboxylic acid

Cat. No.:	HY-101329		
CAS No.:	723-62-6		
Molecular Formula:	C ₁₅ H ₁₀ O ₂		
Molecular Weight:	222.24		
Target:	Chloride Channel		
Pathway:	Membrane Transporter/Ion Channel		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (562.45 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.4996 mL	22.4982 mL	44.9964 mL
	5 mM	0.8999 mL	4.4996 mL	8.9993 mL
	10 mM	0.4500 mL	2.2498 mL	4.4996 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Anthracene-9-carboxylic acid (9-Anthracenecarboxylic acid) is an anthracene derivative traditionally used to block and identify Ca²⁺-activated Cl⁻ currents (CaCCs) in various cell types, like diverse smooth muscle cells, epithelial cells and salivary gland cells^[1].

IC₅₀ & Target

Ca²⁺-activated Cl⁻ currents^[1]

In Vitro

Anthracene-9-carboxylic acid causes a voltage-dependent block of outward currents in HEK 293T cells and inhibits a larger fraction of the current as depolarization increased^[1].
 Anthracene-9-carboxylic acid induces a strong potentiation of tail currents measured at -100 mV after depolarizing voltages, as well as a prolongation of the deactivation kinetics in HEK 293T^[1].
 Anthracene-9-carboxylic acid (500 μM, rabbit pulmonary artery smooth muscle cells) produces a small inhibition of the maximum outward Cl⁻ current at +70 mV (21±10%) but augmented the amplitude of the instantaneous inward relaxation at -80 mV by 321±34%^[2].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Cherian OL, Menini A, Boccaccio A. Multiple effects of anthracene-9-carboxylic acid on the TMEM16B/anoctamin2 calcium-activated chloride channel. *Biochim Biophys Acta*. 2015 Apr;1848(4):1005-13.
- [2]. Piper AS, Greenwood IA. Anomalous effect of anthracene-9-carboxylic acid on calcium-activated chloride currents in rabbit pulmonary artery smooth muscle cells. *Br J Pharmacol*. 2003 Jan;138(1):31-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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