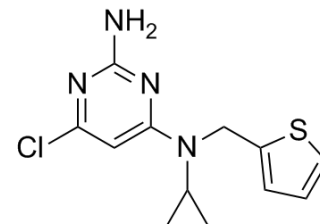


LRE1

Cat. No.:	HY-100524		
CAS No.:	1252362-53-0		
Molecular Formula:	C ₁₂ H ₁₃ ClN ₄ S		
Molecular Weight:	280.78		
Target:	Adenylate Cyclase		
Pathway:	GPCR/G Protein		
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 (445.19 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.5615 mL	17.8075 mL	35.6151 mL
	5 mM	0.7123 mL	3.5615 mL	7.1230 mL
	10 mM	0.3562 mL	1.7808 mL	3.5615 mL

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

In Vivo

- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
Solubility: ≥ 2.08 mg/mL (7.41 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% corn oil**
Solubility: ≥ 2.08 mg/mL (7.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LRE1 is a specific and allosteric inhibitor of soluble **adenylyl cyclase**.

IC₅₀ & Target

Adenylyl cyclase^[1]

In Vitro

LRE1 binds to the bicarbonate activator binding site and inhibits soluble adenylyl cyclase (sAC) via a unique allosteric mechanism^[1].

LRE1 prevents sAC-dependent processes in cellular and physiological systems and facilitates exploration of the

therapeutic potential of sAC inhibition^[1].

LRE1 (0.5-100 μ M, 60 minutes) inhibits sperm and mitochondrial functions of sAC^[1].

Western Blot Analysis^[1]

Cell Line:	Mouse cauda sperm
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Concentration:	0.5-100 μ M
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Incubation Time:	60 minutes
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Result:	LRE1 inhibits sAC dependent sperm capacitation ^[1] .
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REFERENCES

[1]. Ramos-Espiritu L, et al. Discovery of LRE1 as a specific and allosteric inhibitor of soluble adenylyl cyclase. Nat Chem Biol. 2016 Oct;12(10):838-44.

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

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