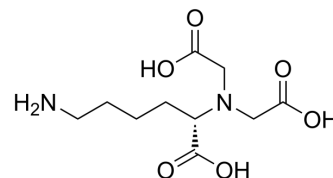


Na,Na-Bis(carboxymethyl)-L-lysine

Cat. No.:	HY-100047
CAS No.:	113231-05-3
Molecular Formula:	C ₁₀ H ₁₈ N ₂ O ₆
Molecular Weight:	262.26
Target:	Taste Receptor
Pathway:	GPCR/G Protein
Storage:	<div> <div>Powder</div> <div> -20°C 3 years 4°C 2 years </div> </div> <div> <div>In solvent</div> <div> -80°C 6 months -20°C 1 month </div> </div>



SOLVENT & SOLUBILITY

In Vitro

DMSO : 1.82 mg/mL (6.94 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.8130 mL	19.0650 mL	38.1301 mL
	5 mM		0.7626 mL	3.8130 mL	7.6260 mL
	10 mM		---	---	---

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

BIOLOGICAL ACTIVITY

Description	Na,Na-Bis(carboxymethyl)-L-lysine is a competitive inhibitor of bitter taste receptor 4, with an IC ₅₀ of 59 nM. Na,Na-Bis(carboxymethyl)-L-lysine can be used in bitter receptors related study ^{[1][2][3]} .
In Vitro	<p>Na,Na-Bis(carboxymethyl)-L-lysine (59 nM) decreases the basal activity of H214A (constitutively active mutant of T2R4) by 40%^[1].</p> <p>Na,Na-Bis(carboxymethyl)-L-lysine (60 nM, 15 mins) blocks the decrease of basal activation state of Rac1 caused by quinine in HEK293T cells overexpressing T2R4 and Ga16/44, but has no effect in HEK293T control cells^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>Na,Na-Bis(carboxymethyl)-L-lysine (10 μM) has no effect on lick responses to bitter compounds in adult C57BL6/J^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

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- [1]. Pydi SP, et al. Amino acid derivatives as bitter taste receptor (T2R) blockers. J Biol Chem. 2014;289(36):25054-25066.
- [2]. Sidhu C, et al. Regulation of Rac1 GTPase activity by quinine through G-protein and bitter taste receptor T2R4. Mol Cell Biochem. 2017;426(1-2):129-136.
- [3]. Masamoto M, et al. Yoshida R. Effects of bitter receptor antagonists on behavioral lick responses of mice. Neurosci Lett. 2020;730:135041.
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Caution: Product has not been fully validated for medical applications. For research use only.

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