



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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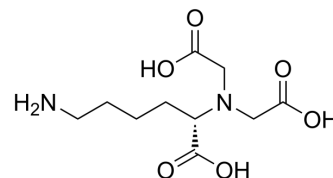
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## Na,Na-Bis(carboxymethyl)-L-lysine

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



### SOLVENT & SOLUBILITY

#### In Vitro

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

|                              | Solvent<br>Concentration | Mass | 1 mg      | 5 mg       | 10 mg      |
|------------------------------|--------------------------|------|-----------|------------|------------|
|                              |                          |      |           |            |            |
| Preparing<br>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 <sub>50</sub> of 59 nM. Na,Na-Bis(carboxymethyl)-L-lysine can be used in bitter receptors related study <sup>[1][2][3]</sup> .                                                                                                                                                                                                                                                                       |
| In Vitro    | <p>Na,Na-Bis(carboxymethyl)-L-lysine (59 nM) decreases the basal activity of H214A (constitutively active mutant of T2R4) by 40%<sup>[1]</sup>.</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<sup>[2]</sup>.</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<sup>[3]</sup>.</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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