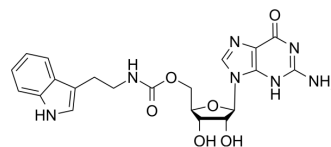


Tryptamine guanosine carbamate

Cat. No.:	HY-138885
CAS No.:	1414808-96-0
Molecular Formula:	C ₂₁ H ₂₃ N ₇ O ₆
Molecular Weight:	469.45
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tryptamine guanosine carbamate (TpGc) is a selective HINT1 (histidine triad nucleotide-binding protein 1) inhibitor ($K_i=34 \mu\text{M}$, $K_d=3.65 \mu\text{M}$). Tryptamine guanosine carbamate significantly enhances morphine antinociception while preventing the development of tolerance ^[1] .
In Vivo	<p>Pretreatment with 20 nmol Tryptamine guanosine carbamate enhances morphine antinociception in 129 HINT1^{+/+} mice and is devoid of effect in HINT1^{-/-} mice. The administration of 7 and 20 nmol of Tryptamine guanosine carbamate 20min before the morphine priming dose significantly reduces the development of acute antinociceptive tolerance in HINT1^{+/+} mice but not in HINT1^{-/-} animals^[1].</p> <p>Tryptamine guanosine carbamate reduces the recruitment of NMDAR activity promoted by morphine. In mice suffering from chronic constriction injury concurrent with increased NMDAR activity, a single intracerebroventricular administration of Tryptamine guanosine carbamate (20 nmol) attenuates NMDAR function and alleviated mechanical allodynia for several days^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Garzón J, et al. HINT1 protein: a new therapeutic target to enhance opioid antinociception and block mechanical allodynia. *Neuropharmacology*. 2015;89:412-423.

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

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