Product Data Sheet

Detomidine carboxylic acid

Cat. No.: HY-135895

CAS No.: 115664-39-6Molecular Formula: $C_{12}H_{12}N_2O_2$ Molecular Weight: 216.24

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Detomidine carboxylic acid is the major urinary metabolite of Detomidine. Detomidine is a synthetic $\alpha 2$ -adrenergic agonist. Detomidine also has cardiac and respiratory effects and an antidiuretic action ^{[1][2]} .
IC ₅₀ & Target	$lpha$ 2-adrenergic $^{[2]}$
In Vivo	Horse urine is investigated for metabolites following the oral administration of the large animal analgesic sedative Detomidine to two stallions and intravenous administration of [³H]-Detomidine to a mare. Detomidine carboxylic acid and hydroxydetomidine glucuronic acid conjugate are identified in the urine after the oral doses. About half of the radioactivity of [³H]-Detomidine is excreted in the urine in 12 h after the i.v. dose (80 µg/kg). Most of the excretion occurred between 5 and 12 h in contrast to urine output which is highest 2-5 h after the dosing. The major radioactive metabolite in the urine is Detomidine carboxylic acid. Detomidine carboxylic acid comprises more than two thirds of the total metabolites in all the urine fractions collected ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Salonen JS, et al. Identification of detomidine carboxylic acid as the major urinary metabolite of detomidine in the horse. Eur J Drug Metab Pharmacokinet. 1992 Jan-Mar;17(1):13-20.

[2]. Virtanen R, et al. Pharmacological evidence for the involvement of alpha-2 adrenoceptors in the sedative effect of detomidine, a novel sedative-analgesic. J Vet Pharmacol Ther. 1985 Mar;8(1):30-7.

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

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