

Product Data Sheet

Oxyfedrine hydrochloride

Cat. No.: HY-108300 CAS No.: 16777-42-7 Molecular Formula: $C_{19}H_{24}CINO_3$ Molecular Weight: 349.85

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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

Analysis.

O N H OH

BIOLOGICAL ACTIVITY

Description	Oxyfedrine hydrochloride, a vasodilator, is an orally active β -adrenoreceptor agonist. Oxyfedrine decreases the tonicity of coronary vessels. Oxyfedrine hydrochloride can be used in the research of cardiovascular disease ^{[1][2]} .
In Vitro	Oxyfedrine (50 μ M, 48 h) suppresses aldehyde dehydrogenase (ALDH) activity in HCT116 and HSC-4 cells ^[1] . Oxyfedrine (50 μ M, 48 h) acts as a sensitizer for GSH-depleting agents, and induces cell death in HCT116 and HSC-4 cells when with the drug combinations ^[1] . Oxyfedrine (0-1 μ g/mL) inhibits spontaneous myogenic activity in rat isolated portal vein ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Oxyfedrine (14 mg/kg, p.o., for 3-4 weeks) shows anti-anginal action in cats ^[2] . Oxyfedrine (10 mg/kg, i.p., HCT116 cell xenograft mice) suppresses tumor growth when combined with sulfasalazine (SSZ, 350 mg/kg, i.p.) ^[1] . Oxyfedrine (1 mg/kg, i.v.) decreases the arterial and venous blood high blood viscosity (HBV) in ice water stress rats ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Otsuki Y, et al. Vasodilator oxyfedrine inhibits aldehyde metabolism and thereby sensitizes cancer cells to xCT-targeted therapy. Cancer Sci. 2020 Jan;111(1):127-136.

[2]. Parratt JR. The haemodynamic effects of prolonged oral administration of oxyfedrine, a partial agonist at beta-adrenoceptors: comparison with propranolol. Br J Pharmacol. 1974 May;51(1):5-13.

[3]. Yu J, et al. [Effects of oxyfedrine on high blood viscosity and myocardial necrosis induced by epinephrine and ice water stress in rats]. Zhongguo Yao Li Xue Bao. 1993 Jul;14(4):364-6.

[4]. Mackenzie JE, et al. Effects of oxyfedrine on isolated portal vein and other smooth muscles. Br J Pharmacol. 1973 Apr;47(4):827-37.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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