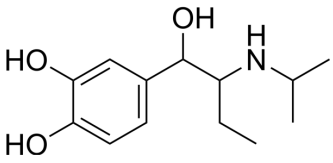
Isoetharine

Cat. No.:	HY-B1481A
CAS No.:	530-08-5
Molecular Formula:	$C_{13}H_{21}NO_3$
Molecular Weight:	239.31
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	Isoetharine (Isoetarine) is an orally active selective agonist of β-adrenergic receptors. Isoetharine is a catechol-like agent and catechol O-methyltransferase (COMT) mediates its methylation. Isoetharine can promote the production of cAMP which stimulates the relaxation of smooth muscle cells and can be used as an emphysema, bronchitis and bronchodilator[1][2].
IC_{50} & Target	β adrenergic receptor
In Vitro	Isoetharine (50 μM, 18 hours) can induce the production and release of [^{35}S]sulfated metabolites of catecholic drugs in HepG2 human hepatoma cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Isoetharine inhibits melanin deposition with the AC_{50} value of 5.10 mM and complete inhibition of pigment production at 7.50 mM in the zebrafish larvae model[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Katsuhisa Kurogi et al. Concerted actions of the catechol O-methyltransferase and the cytosolic sulfotransferase SULT1A3 in the metabolism of catecholic drugs. Biochem Pharmacol. 2012 Nov 1;84(9):1186-95.

[2]. Monika Maciag et al. Evaluation of β-adrenergic ligands for development of pharmacological heart failure and transparency models in zebrafish. Toxicol Appl Pharmacol. 2022 Jan 1;434:115812.

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