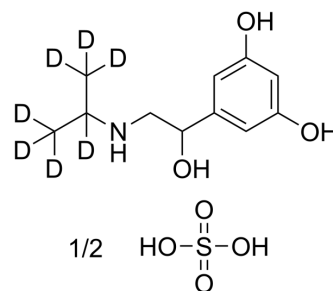


Metaproterenol-d₇ hemisulfate

Cat. No.:	HY-B1276S
Molecular Formula:	C ₁₁ H ₁₂ D ₇ NO ₇ S
Molecular Weight:	267.34
Target:	Adrenergic Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Metaproterenol-d ₇ (hemisulfate) is the deuterium labeled Metaproterenol hemisulfate. Metaproterenol hemisulfate (Orciprenaline hemisulfate) is a direct-acting sympathomimetic and a β ₂ -adrenergic receptor (β ₂ AR) agonist with an IC ₅₀ of 68 nM. Metaproterenol hemisulfate also has anti-inflammatory activity ^{[1][2]} .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Noh H, et al. Beta 2-adrenergic receptor agonists are novel regulators of macrophage activation in diabetic renal and cardiovascular complications. *Kidney Int.* 2017 Jul;92(1):101-113.
- [3]. Ibrahim FA, et al. Highly sensitive spectrofluorimetric method for rapid determination of orciprenaline in biological fluids and pharmaceuticals. *Luminescence.* 2019 Feb;34(1):77-83.

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

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