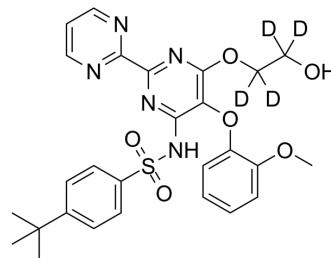


Bosentan-d4

Cat. No.:	HY-115417
CAS No.:	1065472-77-6
Molecular Formula:	C ₂₇ H ₂₅ D ₄ N ₅ O ₆ S
Molecular Weight:	555.64
Target:	Endothelin Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Bosentan-d4 is the deuterium labeled Bosentan. Bosentan is a competitive and dual antagonist of endothelin-1 (ET) for the ET _A and ET _B receptors with K _i of 4.7 nM and 95 nM in human SMC, respectively.
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]. Dhillon S, et al. Bosentan: a review of its use in the management of mildly symptomatic pulmonary arterial hypertension. *Am J Cardiovasc Drugs*. 2009;9(5):331-50.; Akamata K, et al. Bosentan reverses the pro-fibrotic phenotype of systemic sclerosis dermal fibroblasts via increasing DNA binding ability of transcription factor Fli1. *Arthritis Res Ther*. 2014 Apr 3;16(2):R86.; Iglarz M, et al. Comparison of pharmacological activity of macitentan and bosentan in preclinical models of systemic and pulmonary hypertension. *Life Sci*. 2014 Nov 24;118(2):333-9.; Son GY, et al. Endothelin Regulates Porphyromonas gingivalis-Induced Production of Inflammatory Cytokines. *PLoS One*. 2016 Dec 28;11(12):e0167713.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA