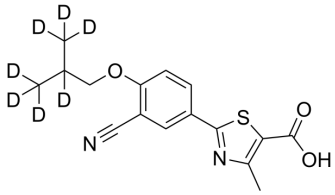
Febuxostat-d_7

Cat. No.:	HY-14268S1
CAS No.:	1285539-74-3
Molecular Formula:	$C_{16}H_9D_7N_2O_3S$
Molecular Weight:	323.42
Target:	Xanthine Oxidase; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Febuxostat-d_7 is deuterium labeled Febuxostat. Febuxostat (TEI 6720) is selective xanthine oxidase inhibitor with a Ki of 0.6 nM[1].
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]. Sanchez-Lozada LG, et al. Effect of febuxostat on the progression of renal disease in 5/6 nephrectomy rats with and without hyperuricemia. Nephron Physiol, 2008, 108(4), p69-p78.

[3]. Sanchez-Lozada LG, et al. Effects of febuxostat on metabolic and renal alterations in rats with fructose-induced metabolic syndrome. Am J Physiol Renal Physiol, 2008, 294(4), F710-F718.

[4]. Takano Y, et al. Selectivity of febuxostat, a novel non-purine inhibitor of xanthine oxidase/xanthine dehydrogenase. Life Sci, 2005, 76(16), 1835-1847.

[5]. Xu X, et al. Xanthine oxidase inhibition with febuxostat attenuates systolic overload-induced left ventricular hypertrophy and dysfunction in mice. Card Fail, 2008, 14(9), 746-753.

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