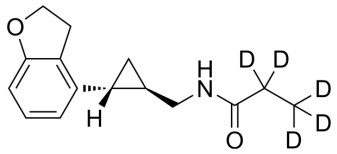
Tasimelteon-d_5

Cat. No.:	HY-14803S
CAS No.:	1962124-51-1
Molecular Formula:	$C_{15}H_{14}D_5NO_2$
Molecular Weight:	250.35
Target:	Melatonin 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	Tasimelteon-d_5 is the deuterium labeled Tasimelteon. Tasimelteon (BMS-214778) is an orally active and selective dual melatonin receptor agonist (DMRA). Tasimelteon has 2.1-4.4 times greater affinity for the MT2 receptor than for the MT1 receptor. Tasimelteon is a circadian regulator and has the potential for Non-24-Hour Sleep-Wake Disorder (Non-24)[1][2].
IC_{50} & Target	MT2
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]. Christian Lavedan, et al. Tasimelteon: a selective and unique receptor binding profile. Neuropharmacology. 2015 Apr;91:142-7.

[3]. Keating GM, et al. Tasimelteon: A Review in Non-24-Hour Sleep-Wake Disorder in Totally Blind Individuals. CNS Drugs. 2016 Mar 22.

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