# PRODUCT INFORMATION



## Tasimelteon-d<sub>5</sub>

Item No. 31771

CAS Registry No.: 1962124-51-1

Formal Name: N-[[(1R,2R)-2-(2,3-dihydro-4-benzofuranyl)

cyclopropyl]methyl]-propanamide-2,2,3,3,3-d<sub>5</sub>

Synonym: BMS 214778-d<sub>5</sub> MF:  $C_{15}H_{14}D_5NO_2$ 

250.4 FW:

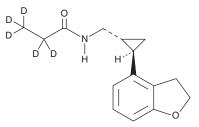
**Chemical Purity:** ≥98% (Tasimelteon)

Deuterium

Incorporation:  $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>5</sub>);  $\leq$ 1% d<sub>0</sub>

Supplied as: A solid -20°C Storage: Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



### **Laboratory Procedures**

Tasimelteon- $d_5$  is intended for use as an internal standard for the quantification of tasimelteon (Item No. 23546) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Tasimelteon- $d_5$  is supplied as a solid. A stock solution may be made by dissolving the tasimelteon- $d_5$  in the solvent of choice, which should be purged with an inert gas. Tasimelteon- $d_s$  is soluble in methanol, DMSO, dimethyl formamide, and acetonitrile.

#### Description

Tasimelteon is a melatonin (MT) receptor agonist. It selectively binds  $MT_1$  and  $MT_2$  receptors ( $K_i$ s = 0.304 and 0.069 nM, respectively, in NIH3T3 cells expressing the recombinant human receptors) over a panel of 160 additional receptors and enzymes at 10  $\mu$ M. Tasimelteon inhibits forskolin-induced cAMP accumulation with EC<sub>50</sub> values of 0.79 and 1 nM in NIH3T3 cells expressing the MT<sub>1</sub> or MT<sub>2</sub> receptor, respectively. Formulations containing tasimelteon have been used in the treatment of non-24-hour sleep-wake disorder.

#### Reference

1. Lavedan, C., Forsberg, M., and Gentile, A.J. Tasimelteon: A selective and unique receptor binding profile. Neuropharmacology 91, 142-147 (2015).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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