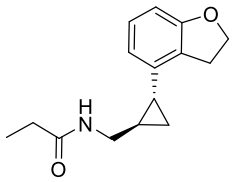
Product data sheet

MedKoo Cat#: 314205 Name: Tasimelteon CAS#: 609799-22-6 Chemical Formula: $C_{15}H_{19}NO_2$ Exact Mass: 245.14158 Molecular Weight: 245.32	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

Tasimelteon (trade name Hetlioz) is a drug approved by the FDA solely for the treatment of non-24-hour sleep–wake disorder (often designated as N24HSWD) in totally blind adults. It is a selective agonist for the melatonin receptors MT1 and MT2 in the suprachiasmatic nucleus of the brain, similar to other members of the melatonin receptor agonist class of which ramelteon (2005) and agomelatine (2009) were the first approved.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	37.33	152.17

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	4.08 mL	20.38 mL	40.76 mL
5 mM	0.82 mL	4.08 mL	8.15 mL
10 mM	0.41 mL	2.04 mL	4.08 mL
50 mM	0.08 mL	0.41 mL	0.82 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Lavedan C, Forsberg M, Gentile AJ. Tasimelteon: a selective and unique receptor binding profile. Neuropharmacology. 2015 Apr;91:142-7. doi: 10.1016/j.neuropharm.2014.12.004. Epub 2014 Dec 19. PMID: 25534555.

In vivo study

N/A

7. Bioactivity

Biological target:

Tasimelteon (BMS-214778) is an orally active and selective dual melatonin receptor agonist (DMRA).

In vitro activity

Tasimelteon had no significant interaction with any other commonly screened receptors or enzyme binding sites tested, including a wide array of receptors of neurotransmitter systems such as dopamine, norepinephrine, serotonin, GABA, acetylcholine, opioid, N-methyl-d-aspartate (NMDA), hypocretin (orexin), and cannabinoid; this finding supports the observation that tasimelteon did not produce signs or symptoms indicative of abuse potential in animal or clinical studies and did not produce withdrawal symptoms after

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discontinuation of chronic administration. Tasimelteon's receptor binding profile is distinct from that of two other molecules known to bind both melatonin receptors, ramelteon and agomelatine; ramelteon has 8 times lower affinity for the MT2 receptor than for the MT1 receptor, and agomelatine, a non-specific melatonin agonist, has a 4.4 times lower affinity for the MT2 receptor than for the MT1 receptor and binds also to several serotonin 5-HT2 receptors.

Reference: Neuropharmacology. 2015 Apr;91:142-7. https://pubmed.ncbi.nlm.nih.gov/25534555/

In vivo activity

N/A

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.