

Product data sheet



MedKoo Cat#: 532617 Name: S26131 CAS#: 296280-56-3 Chemical Formula: C ₃₁ H ₃₄ N ₂ O ₄ Exact Mass: 498.2519 Molecular Weight: 498.62	
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:

S26131 is a bioactive chemical.

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	5.0	10.03

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.01 mL	10.03 mL	20.06 mL
5 mM	0.40 mL	2.01 mL	4.01 mL
10 mM	0.20 mL	1.00 mL	2.01 mL
50 mM	0.04 mL	0.20 mL	0.40 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

- Liu WX, Tan SJ, Wang YF, Zhang FL, Feng YQ, Ge W, Dyce PW, Reiter RJ, Shen W, Cheng SF. Melatonin promotes the proliferation of primordial germ cell-like cells derived from porcine skin-derived stem cells: A mechanistic analysis. *J Pineal Res.* 2022 Nov;73(4):e12833. doi: 10.1111/jpi.12833. Epub 2022 Sep 22. PMID: 36106819.
- Huang CT, Chen SH, Chang CF, Lin SC, Lue JH, Tsai YJ. Melatonin reduces neuropathic pain behavior and glial activation through MT2 melatonin receptor modulation in a rat model of lysophosphatidylcholine-induced demyelination neuropathy. *Neurochem Int.* 2020 Nov;140:104827. doi: 10.1016/j.neuint.2020.104827. Epub 2020 Aug 24. PMID: 32853748.

In vivo study

- Ramsay S, Zagorodnyuk V. Melatonin inhibits muscular-mucosal stretch-sensitive bladder afferents via the MT2 receptors. *Sci Rep.* 2022 Oct 21;12(1):17686. doi: 10.1038/s41598-022-22705-z. PMID: 36271291; PMCID: PMC9586995.

7. Bioactivity

Biological target:

S26131 is a potent and selective MT1 melatonergic ligand, and the Ki values are 0.5 and 112 nM for MT1 and MT2, respectively.

In vitro activity

S26131 was used to block the MT1 receptor. By inhibiting the MT1 receptor, S26131 was employed to investigate the role of the MT1

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receptor in the proliferation of porcine skin-derived stem cell-derived primordial germ cell-like cells to investigate how melatonin promotes the proliferation of PGCLCs and its potential involvement in the mitogen-activated protein kinase signaling pathway.

Reference: J Pineal Res. 2022 Nov;73(4):e12833. <https://pubmed.ncbi.nlm.nih.gov/36106819/>

In vivo activity

S26131 was used as an MT1 receptor antagonist to study the effects of melatonin on bladder sensory neurons. Melatonin had inhibitory effects on the mechanosensitivity of certain bladder afferents, specifically the low threshold stretch-sensitive muscular-mucosal bladder afferents, by acting through the MT2 receptors. This suggests that S26131, as an MT1 receptor antagonist, did not block the inhibitory effects of melatonin.

Reference: Sci Rep. 2022 Oct 21;12(1):17686. <https://pubmed.ncbi.nlm.nih.gov/36271291/>

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.