

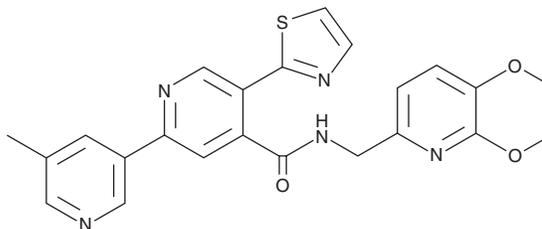
# PRODUCT INFORMATION



**MK-3697**

Item No. 34718

**CAS Registry No.:** 1224846-01-8  
**Formal Name:** N-[(5,6-dimethoxy-2-pyridinyl)methyl]-5'-methyl-5-(2-thiazolyl)-[2,3'-bipyridine]-4-carboxamide  
**MF:** C<sub>23</sub>H<sub>21</sub>N<sub>5</sub>O<sub>3</sub>S  
**FW:** 447.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 290, 316 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

## Laboratory Procedures

MK-3697 is supplied as a solid. A stock solution may be made by dissolving the MK-3697 in the solvent of choice, which should be purged with an inert gas. MK-3697 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of MK-3697 in these solvents is approximately 1 and 10 mg/ml, respectively.

MK-3697 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MK-3697 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MK-3697 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

MK-3697 is an orexin receptor 2 (OX2R) antagonist ( $K_i = 1.1$  nM).<sup>1</sup> It is selective for OX2R over OX1R ( $K_i = 3,600$  nM). MK-3697 decreases active awake time and increases slow wave sleep (SWS) and rapid eye movement (REM) sleep in mice when administered at a dose of 100 mg/kg. It also decreases active awake time and increases phase II SWS in dogs.

## Reference

1. Roecker, A.J., Reger, T.S., Mattern, M.C., *et al.* Discovery of MK-3697: A selective orexin 2 receptor antagonist (2-SORA) for the treatment of insomnia. *Bioorg. Med. Chem. Lett.* **24(20)**, 4884-4890 (2014).

### WARNING

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

### SAFETY DATA

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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