

# PRODUCT INFORMATION

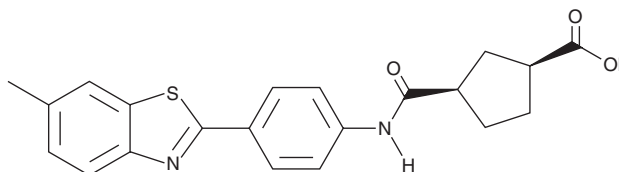


## C3001a

Item No. 31064

**CAS Registry No.:** 2415154-29-7  
**Formal Name:** (1S,3R)-3-[[[4-(6-methyl-2-benzothiazolyl)phenyl]amino]carbonyl]-cyclopentanecarboxylic acid

**MF:** C<sub>21</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub>S  
**FW:** 380.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 215, 330 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

C3001a is supplied as a crystalline solid. A stock solution may be made by dissolving the C3001a in the solvent of choice, which should be purged with an inert gas. C3001a is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of C3001a in these solvents is approximately 30 mg/ml.

C3001a is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, C3001a should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. C3001a has a solubility of approximately 0.09 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

C3001a is an activator of the two-pore domain potassium channels K<sub>2p</sub>2.1/TREK1 and K<sub>2p</sub>10.1/TREK2.<sup>1</sup> It increases current amplitude in HEK293T cells expressing K<sub>2p</sub>2.1/TREK1 or K<sub>2p</sub>10.1/TREK2 (EC<sub>50</sub>s = 12.81 and 11.31 μM, respectively, for the human channels). C3001a is selective for K<sub>2p</sub>2.1/TREK1 and K<sub>2p</sub>10.1/TREK2 over a panel of five additional K<sub>2p</sub> channels at 10 μM. *In vivo*, C3001a (10 mg/kg) reduces edema and pancreatic necrosis in a mouse model of acute pancreatitis. It reduces mechanical and thermal hyperalgesia in a mouse model of chronic inflammatory pain induced by complete Freund's adjuvant (CFA). C3001a (5 mg/kg) also reduces cold hyperalgesia in a mouse model of neuropathic pain induced by spared nerve injury (SNI).

### Reference

1. Qiu, Y., Huang, L., Fu, J., *et al.* TREK channel family activator with a well-defined structure-activation relationship for pain and neurogenic inflammation. *J. Med. Chem.* **63**(7), 3665-3677 (2020).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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