

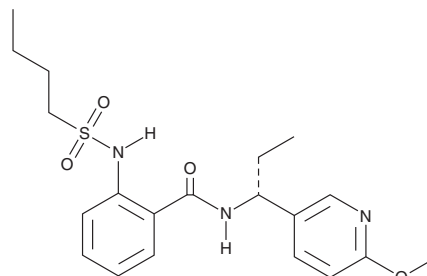
# PRODUCT INFORMATION



## AVE-1231

Item No. 45299

**CAS Registry No.:** 767334-89-4  
**Formal Name:** 2-[(butylsulfonyl)amino]-N-[(1R)-1-(6-methoxy-3-pyridinyl)propyl]-benzamide  
**Synonym:** A293  
**MF:** C<sub>20</sub>H<sub>27</sub>N<sub>3</sub>O<sub>4</sub>S  
**FW:** 405.5  
**Purity:** ≥98%  
**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

AVE-1231 is supplied as a solid. A stock solution may be made by dissolving the AVE-1231 in the solvent of choice, which should be purged with an inert gas. AVE-1231 is slightly soluble (0.1-1 mg/ml) in DMSO and a 1:1 solution of acetonitrile:water.

### Description

AVE-1231 is an inhibitor of two-pore domain potassium channel 3.1 (K<sub>2p</sub>3.1), also known as TWIK-related acid-sensitive potassium channel (TASK1).<sup>1</sup> It reduces potassium currents in *X. laevis* oocytes expressing TASK1 (IC<sub>50</sub> = 0.22 μM) but also those expressing voltage-gated potassium channel 1.5 (K<sub>v</sub>1.5; IC<sub>50</sub> = 5.6 μM).<sup>2</sup> AVE-1231 (1 mg/kg) restores sinus rhythm in a porcine model of acute paroxysmal atrial fibrillation.<sup>3</sup> It also reduces the severity of experimental autoimmune encephalomyelitis (EAE) in wild-type mice but not TASK1 knockout mice when administered at a dose of 0.02 mg/kg.<sup>4</sup>

### References

1. Shvetsova, A.A., Lazarenko, V.S., Gaynullina, D.K., *et al.* TWIK-related acid-sensitive potassium channels (TASK-1) emerge as contributors to tone regulation in renal arteries at alkaline pH. *Front. Physiol.* **13**, 895863 (2022).
2. Kiper, A.K., Rinné, S., Rolfes, C., *et al.* Kv1.5 blockers preferentially inhibit TASK-1 channels: TASK-1 as a target against atrial fibrillation and obstructive sleep apnea? *Pflugers. Arch.* **467**(5), 1081-1090 (2015).
3. Wiedmann, F., Beyersdorf, C., Zhou, X., *et al.* Pharmacologic TWIK-related acid-sensitive K<sup>+</sup> channel (TASK-1) potassium channel inhibitor A293 facilitates acute cardioversion of paroxysmal atrial fibrillation in a porcine large animal model. *J. Am. Heart Assoc.* **9**(10), e015751 (2020).
4. Bittner, S., Bauer, M.A., Ehling, P., *et al.* The TASK1 channel inhibitor A293 shows efficacy in a mouse model of multiple sclerosis. *Exp. Neurol.* **238**(2), 149-155 (2012).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM