

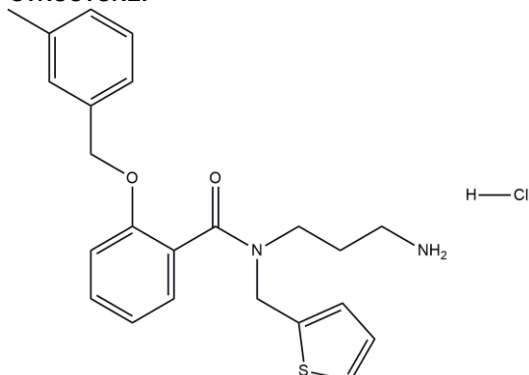
AMTB hydrochloride

01/20

ALTERNATE NAMES: N-(3-aminopropyl)-2-[(3-methylphenyl)methoxy]-N-(thiophen-2-ylmethyl)benzamide, hydrochloride; N-(3-aminopropyl)-2-[(3-methylphenyl)methoxy]-N-(2-thienylmethyl)-benzamide, monohydrochloride; N-(3-aminopropyl)-2-[(3-methylbenzyl)oxy]-N-(thiophen-2-ylmethyl)benzamide hydrochloride

CATALOG #: B2978-5 5 mg
B2978-25 25 mg

STRUCTURE:



MOLECULAR FORMULA: C₂₃H₂₇ClN₂O₂S

MOLECULAR WEIGHT: 430.99

CAS NUMBER: 926023-82-7

APPEARANCE: Solid

PURITY: 99%

SOLUBILITY: ~40 mg/ml in water and DMSO

DESCRIPTION: AMTB is an antagonist of transient receptor potential melastatin 8 (TRPM8). It inhibits icilin-induced calcium influx with a pIC₅₀ of 6.23. Intravenous administration of AMTB (3 mg/kg) decreases the frequency of volume-induced urinary bladder contractions, without reducing the amplitude of contraction in a rat model. It inhibits the response to noxious bladder stimulation at 10 mg/kg. AMTB also inhibits the sodium channel (Nav) isoforms Nav1.1-1.9 with IC₅₀ values of 2 μM-14.8 μM and decreases viability of MDA-MB-231 and SK-BR-3 breast cancer cells with IC₅₀ values of ~23.7 μM and 17.3 μM, respectively in a TRPM8-independent manner.

STORAGE TEMPERATURE: -20°C. Protect from air. Store under desiccating conditions.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Yapa, K.T.D.S., Deuis, J., Peters, A.A., et al. Assessment of the TRPM8 inhibitor AMTB in breast cancer cells and its identification as an inhibitor of voltage gated sodium channels. *Life Sci.* 198, 128-135 (2018).
2. Lashinger, E.S.R., Steinginga, M.S., Hieble, J.P., et al. AMTB, a TRPM8 channel blocker: Evidence in rats for activity in overactive bladder and painful bladder syndrome. *Am. J. Physiol. Renal Physiol.* 295(3), F803-F810 (2008).

RELATED PRODUCTS:

Optovin (Cat. No. 9594)
 GSK 1016790A (Cat. No. B2952)
 TCS 5861528 (Cat. No. B2977)
 ASP7663 (Cat. No. B2976)
 FURA-5F/AM (Cat. No. 9551)

DISCLAIMER: *FOR RESEARCH USE ONLY! Not to be used on humans.*