

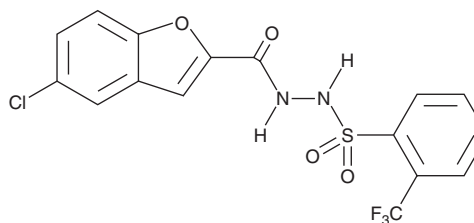
PRODUCT INFORMATION



BCATc Inhibitor 2

Item No. 9002002

CAS Registry No.: 406191-34-2
Formal Name: 5-chloro-2-benzofurancarboxylic acid 2-[[2-(trifluoromethyl)phenyl]sulfonyl]hydrazide
Synonyms: Cytosolic Branched-Chain Amino Acid Transferase Inhibitor 2
MF: C₁₆H₁₀ClF₃N₂O₄S
FW: 418.8
Purity: ≥98%
UV/Vis.: λ_{max}: 215, 275 nm
Supplied as: A crystalline 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

BCATc inhibitor 2 is supplied as a crystalline solid. A stock solution may be made by dissolving the BCATc inhibitor 2 in the solvent of choice, which should be purged with an inert gas. BCATc inhibitor 2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of BCATc inhibitor 2 in these solvents is approximately 10, 20, and 25 mg/ml, respectively.

BCATc inhibitor 2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BCATc inhibitor 2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. BCATc inhibitor 2 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BCATc inhibitor 2 is a sulfonyl hydrazide that inhibits BCATc (IC₅₀s = 0.81 and 0.2 μM for human and rat, respectively) with 15-fold selectivity over BCATm.¹⁻³ This compound has been shown to block calcium influx into neurons (IC₅₀ = 4.8 μM) following inhibition of glutamate uptake and to demonstrate neuroprotective efficacy in an *in vivo* rat model of neurodegeneration.²

References

1. Bora, K., Hu, L.Y., Kesten, S.R., *et al.* Branched chain amino acid-dependent aminotransferase inhibitors and their use in the treatment of neurodegenerative diseases. World Intellectual Property Organization - International Bureau Publication WO 02/24672 A2 **PCT/US01/25892**, (2002).
2. Hu, L.Y., Boxer, P.A., Kesten, S.R., *et al.* The design and synthesis of human branched-chain amino acid aminotransferase inhibitors for treatment of neurodegenerative diseases. *Bioorg. Med. Chem. Lett.* **16(9)**, 2337-2340 (2006).
3. Caballero, J., Vergara-Jaque, A., Fernández, M., *et al.* Docking and quantitative structure-activity relationship studies for sulfonyl hydrazides as inhibitors of cytosolic human branched-chain amino acid aminotransferase. *Mol. Divers.* **13(4)**, 493-500 (2009).

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