

PRODUCT INFORMATION



TCS 401

Item No. 20393

CAS Registry No.: 243966-09-8

Formal Name: 2-[(carboxycarbonyl)amino]-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxylic acid, monohydrochloride

MF: $C_{10}H_{10}N_2O_5S \cdot HCl$

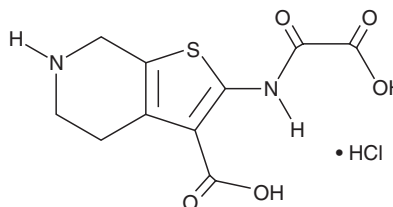
FW: 306.7

Purity: $\geq 95\%$

Supplied as: A crystalline solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years



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

Laboratory Procedures

TCS 401 is supplied as a crystalline solid. A stock solution may be made by dissolving the TCS 401 in the solvent of choice, which should be purged with an inert gas. TCS 401 is soluble in 0.1 M NaOH at a concentration of approximately 5 mg/ml.

Description

TCS 401 is a selective inhibitor of protein-tyrosine phosphatase 1B (PTP1B; $K_i = 0.29 \mu M$).¹ It inhibits the protein phosphatases CD45 D1D2, PTP β , PTP ϵ D1, SHP-1, PTP α D1, and LAR D1D2 at much higher concentrations (K_i s = 59, 560, 1,100, >2,000, >2,000, and >2,000 μM , respectively).¹ Several PTPs have been proposed to act as negative regulators of insulin signaling, thus this enzyme is a potential drug target in diabetes.

Reference

1. Iversen, L.F., Andersen, H.S., Branner, S., *et al.* Structure-based design of a low molecular weight, nonphosphorus, nonpeptide, and highly selective inhibitor of protein-tyrosine phosphatase 1B. *J. Biol. Chem.* **275**(14), 10300-10307 (2000).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/21/2022

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