

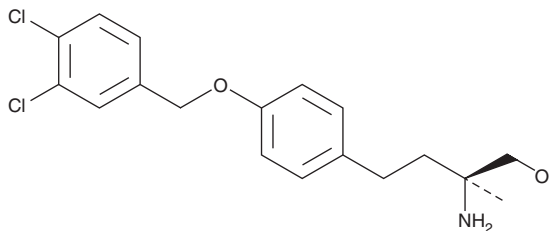
PRODUCT INFORMATION



P053

Item No. 26113

CAS Registry No.: 2748196-63-4
Formal Name: (βS)-β-amino-4-[(3,4-dichlorophenyl)methoxy]-β-methyl-benzenebutanol
MF: C₁₈H₂₁Cl₂NO₂
FW: 354.3
Purity: ≥95%
UV/Vis.: λ_{max}: 225 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

P053 is supplied as a crystalline solid. A stock solution may be made by dissolving the P053 in the solvent of choice. P053 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of P053 in these solvents is approximately 30 mg/ml.

Description

P053 is an inhibitor of ceramide synthase 1 (CerS1; IC₅₀s = 0.54 and 0.46 μM for human and mouse CerS1, respectively).¹ It is selective for CerS1 over CerS2, CerS4, CerS5, and CerS6 (IC₅₀s = 28.6, 17.2, 7.2, and 11.4 μM, respectively). P053 decreases the production of C18 ceramide (Item No. 19556) from dihydrosphingosine in cortical neuron cultures in a concentration-dependent manner. It also lowers levels of C18 ceramide, C18 galactosylceramide, and C18:0 and 18:1 sphingomyelin species in HEK293 cells, when used at concentrations ranging from 30 to 300 nM, without inducing cell death. P053 (5 mg/kg) decreases endogenous C18 and C18:2/18:0 ceramide levels and increases C22:0 (Item No. 22533), C24:0 (Item No. 62535), and C24:1 ceramide (Item No. 62530) levels in mouse skeletal muscle. It increases fatty acid oxidation in mouse skeletal muscle and inhibits triglyceride synthesis and increases in white adipose mass in a model of high-fat diet-induced obesity but does not affect insulin resistance.

Reference

1. Turner, N., Lim, X.Y., Toop, H.D., *et al.* A selective inhibitor of ceramide synthase 1 reveals a novel role in fat metabolism. *Nat. Commun.* **9**(1), 3165 (2018).

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.

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