

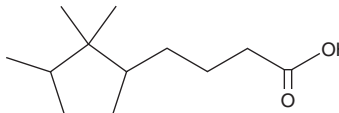
PRODUCT INFORMATION



4-(2,2,3-Trimethylcyclopentyl)butanoic Acid

Item No. 19606

CAS Registry No.: 957136-80-0
Formal Name: 2,2,3-trimethyl-cyclopentanebutanoic acid
Synonym: GIV3727
MF: C₁₂H₂₂O₂
FW: 198.3
Purity: ≥98%
Supplied as: A solution in methanol
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

4-(2,2,3-Trimethylcyclopentyl)butanoic acid is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 4-(2,2,3-trimethylcyclopentyl)butanoic acid in these solvents is approximately 20, 25 and 30 mg/ml, respectively.

4-(2,2,3-Trimethylcyclopentyl)butanoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methanolic solution of 4-(2,2,3-trimethylcyclopentyl)butanoic acid should be diluted with the aqueous buffer of choice. The solubility of 4-(2,2,3-trimethylcyclopentyl)butanoic acid in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

4-(2,2,3-Trimethylcyclopentyl)butanoic acid is an orthosteric, insurmountable antagonist of the human bitter taste receptors hTAS2R31 and hTAS2R43.¹ It prevents the activation of hTAS2R31 by saccharin and acesulfame K in cells with IC₅₀ values of 7.9 and 2.4 μM, respectively.¹ In human sensory trials, 4-(2,2,3-trimethylcyclopentyl)butanoic acid significantly reduced the bitter flavor associated with these two artificial sweeteners.¹

Reference

1. Slack, J.P., Brockhoff, A., Batram, C., *et al.* Modulation of bitter taste perception by a small molecule hTAS2R antagonist. *Curr. Biol.* **20(12)**, 1104-1109.

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, 10/06/2022

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