

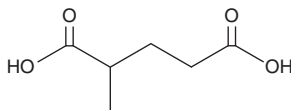
PRODUCT INFORMATION



2-Methylglutaric Acid

Item No. 36440

CAS Registry No.: 617-62-9
Formal Name: 2-methyl-pentanedioic acid
Synonyms: FA 6:1;O2, α -Methylglutaric Acid, NSC 5941, NSC 408456
MF: $C_6H_{10}O_4$
FW: 146.1
Purity: $\geq 95\%$
Supplied as: A 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

2-Methylglutaric acid is supplied as a solid. A stock solution may be made by dissolving the 2-methylglutaric acid in the solvent of choice, which should be purged with an inert gas. 2-Methylglutaric acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-methylglutaric acid in DMSO is approximately 16 mg/ml and approximately 20 mg/ml in DMF. It is slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 2-methylglutaric acid can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 2-methylglutaric acid in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2-Methylglutaric acid is a dicarboxylic acid and derivative of the L-leucine metabolite 3-methylglutaric acid (Item No. 34357) that has been found in *K. excelsa* honey.¹ 2-Methylglutaric acid levels are decreased by the methylation inhibitor 5-aza-2'-deoxycytidine (decitabine; Item No. 11166) in several bladder cancer cell lines.²

References

1. Wilkins, A.L., Lu, Y., and Tan, S.-T. Extractives from New Zealand honeys. 5. Aliphatic dicarboxylic acids in New Zealand rewarewa (*Knights excelsa*) honey. *J. Agric. Food Chem.* **43**, 3021-3025 (1995).
2. Ambati, C.R., Vantaku, V., Donepudi, S.R., et al. Measurement of methylated metabolites using Liquid Chromatography-Mass Spectrometry and its biological application. *Anal. Methods* **11**(1), 49-57 (2019).

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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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