

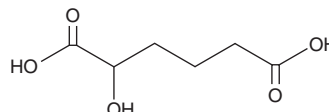
PRODUCT INFORMATION



2-Hydroxyadipic Acid

Item No. 36482

CAS Registry No.: 18294-85-4
Formal Name: 2-hydroxy-hexanedioic acid
Synonyms: FA 6:1;O3, α -Hydroxyadipic Acid
MF: $C_6H_{10}O_5$
FW: 162.1
Purity: $\geq 98\%$
Supplied as: A 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

2-Hydroxyadipic acid is supplied as a solid. A stock solution may be made by dissolving the 2-hydroxyadipic acid in the solvent of choice, which should be purged with an inert gas. 2-Hydroxyadipic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-hydroxyadipic acid in DMSO is approximately 1 mg/ml and approximately 2 mg/ml in ethanol and DMF.

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-hydroxyadipic acid can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 2-hydroxyadipic acid in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2-Hydroxyadipic acid is a dicarboxylic fatty acid. Levels of 2-hydroxyadipic acid are decreased in tumor tissue from patients with esophageal squamous cell carcinoma.¹ Urinary 2-hydroxyadipic acid levels are increased in patients with 2-ketoadipic aciduria, a disorder characterized by a deficiency in lysine, hydroxylysine, and tryptophan degradation.²

References

1. Chen, Z., Gao, Y., Huang, X., *et al.* Tissue-based metabolomics reveals metabolic biomarkers and potential therapeutic targets for esophageal squamous cell carcinoma. *J. Pharm. Biomed. Anal.* **197**, 113937 (2021).
2. Stiles, A.R., Venturoni, L., Mucci, G., *et al.* New cases of *DHTKD1* mutations in patients with 2-ketoadipic aciduria. *JIMD Reports Volume 25*. Morava, E., Baumgartner, M., Patterson, M., *et al.*, 1st ed., SSIEM and Springer-Verlag Berlin Heidelberg (2015).

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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