

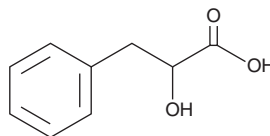
PRODUCT INFORMATION



3-Phenyllactic Acid

Item No. 36365

CAS Registry No.: 828-01-3
Formal Name: α-hydroxy-benzenepropanoic acid
Synonyms: Ba 2653,
2-Hydroxy-3-phenylpropanoic Acid,
NSC 2627, (±)-3-Phenyllactic Acid,
DL-3-Phenyllactic Acid
MF: C₉H₁₀O₃
FW: 166.2
Purity: ≥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

3-Phenyllactic acid is supplied as a solid. A stock solution may be made by dissolving the 3-phenyllactic acid in the solvent of choice, which should be purged with an inert gas. 3-Phenyllactic acid is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 3-phenyllactic acid in these solvents is approximately 3 and 12 mg/ml, respectively.

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 3-phenyllactic acid can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 3-phenyllactic acid in PBS (pH 7.2) is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

3-Phenyllactic acid is a phenyl alkanolic acid with diverse biological activities.¹⁻³ It is active against the fungi *A. flavus* and *A. ochraceus* (MIC_{90s} = 7.5 mg/ml for both) and various plant pathogenic fungi (MIC_{90s} = 3.75-7.5 mg/ml).¹ Dietary administration of 3-phenyllactic acid (0.3% w/w) improves egg laying production and eggshell strength in chickens.² 3-Phenyllactic acid serum levels are lower in patients with benign multiple sclerosis (MS) compared with patients without MS, patients with symptomatic MS, and patients with MS resistant to fingolimod.³

References

1. Lavermicocca, P., Valerio, F., and Visconti, A. Antifungal activity of phenyllactic acid against molds isolated from bakery products. *Appl. Environ. Microbiol.* **69**(1), 634-640 (2003).
2. J.P., W., J.S., Y., J.H., L., *et al.* Effects of phenyllactic acid on production performance, egg quality parameters, and blood characteristics in laying hens. *J. Appl. Poult. Res.* **18**(2), (2009).
3. Oezguen, N., Yilmaz, V., Horvath, T.D., *et al.* Serum 3-phenyllactic acid level is reduced in benign multiple sclerosis and is associated with effector B cell ratios. *Mult. Scler. Relat. Disord.* **68**, 104239 (2022).

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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