PRODUCT INFORMATION



Glycerol Phenylbutyrate

Item No. 40832

CAS Registry No.: 611168-24-2

Formal Name: benzenebutanoic acid,

1,1',1''-(1,2,3-propanetriyl) ester

Synonyms: GPB, HPN-100 MF: $C_{33}H_{38}O_{6}$ FW: 530.7 **Purity:** ≥95% Supplied as: A neat oil Storage: -20°C Stability: ≥4 years

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

Laboratory Procedures

Glycerol phenylbutyrate is supplied as a neat oil. A stock solution may be made by dissolving the glycerol phenylbutyrate in the solvent of choice, which should be purged with an inert gas. Glycerol phenylbutyrate is soluble (≥10 mg/ml) in organic solvents such as ethanol and DMSO.

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 glycerol phenylbutyrate can be prepared by directly dissolving the neat oil in aqueous buffers. The solubility of glycerol phenylbutyrate in PBS (pH 7.2) is ≥10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Glycerol phenylbutyrate is a pre-prodrug form of the nitrogen-binding prodrug and chemical chaperone sodium 4-phenylbutyrate (Item No. 11323).¹ It is converted by pancreatic lipase in the small intestine to sodium 4-phenylbutyrate, which is subsequently converted into the active metabolite phenylacetate via β-oxidation. Formulations containing glycerol phenylbutyrate have been used in the treatment of urea cycle disorders that cannot be managed by diet or amino acid supplementation alone.

Reference

1. Oishi, K. and Diaz, G.A. Glycerol phenylbutyrate for the chronic management of urea cycle disorders. Expert Rev. Endocrinol. Metab. 9(5), 427-434 (2014).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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