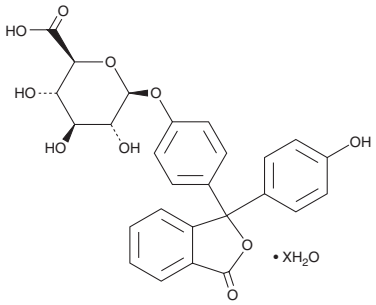
PRODUCT INFORMATION

Phenolphthalein β-D-Glucuronide (hydrate)

Item No. 30424

Formal Name:	4-[1,3-dihydro-1-(4-hydroxyphenyl)-3-oxo-1-isobenzofuranyl]phenyl, β-D-glucopyranosiduronic acid, hydrate
Synonym:	Phenolphthalein β-Glucuronide
MF:	$C_{26}H_{22}O_{10} \bullet XH_2O$
FW:	494.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 227 nm
Supplied as:	A crystalline 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

Phenolphthalein β-D-glucuronide (hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the phenolphthalein β-D-glucuronide (hydrate) in the solvent of choice, which should be purged with an inert gas. Phenolphthalein β-D-glucuronide (hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of phenolphthalein β-D-glucuronide (hydrate) in these solvents is approximately 30 mg/ml.

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 phenolphthalein β-D-glucuronide (hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of phenolphthalein β-D-glucuronide (hydrate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Phenolphthalein β-D-glucuronide is a colorimetric substrate for β-glucuronidase.[1] Upon enzymatic cleavage by β-glucuronidase, phenolphthalein is released, which can be quantified by colorimetric detection at 552 nm as a measure of β-galactosidase activity.[1,2]

References

1. Ball, A.L., Chambers, K.A., Hewinson, M., *et al.* A microtitre plate assay for measuring glycosidase activity. *J. Enzyme Inhib. Med. Chem.* **23(1)**, 131-135 (2008).
2. Huang, Y.-L. and Chau, C.-F. Improvement in intestinal function of hamsters as influenced by consumption of polysaccharide-rich sage weed extracts. *Food Chem.* **133(4)**, 1618-1623 (2012).

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