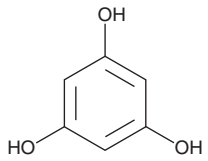
PRODUCT INFORMATION

Phloroglucinol

Item No. 23223

CAS Registry No.:	108-73-6
Formal Name:	1,3,5-benzenetriol
Synonyms:	Benzene-*s*-triol, 1,3,5-Hydroxybenzene, NSC 1572, 1,3,5-Trihydroxybenzene, *sym*-Trihydroxybenzene
MF:	$C_6H_6O_3$
FW:	126.1
Purity:	≥98%
UV/Vis.:	λ_{max}: 226 nm
Supplied as:	A crystalline solid
Storage:	4°C
Stability:	≥4 years



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

Laboratory Procedures

Phloroglucinol is supplied as a crystalline solid. A stock solution may be made by dissolving the phloroglucinol in the solvent of choice. Phloroglucinol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of phloroglucinol in these solvents is approximately 25, 15, and 30 mg/ml, respectively.

Phloroglucinol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, phloroglucinol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Phloroglucinol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Phloroglucinol is a naturally occurring phenol that exhibits diverse biological activities.[1] Phloroglucinol protects V79-4 Chinese hamster lung fibroblast cells from oxidative stress and inhibits lipid peroxidation by scavenging reactive oxygen species (ROS).[2] It induces apoptosis in HT-29 human colon cancer cells and inhibits metastasis of BT549 and MDA-MB-231 human breast cancer cells.[3,4] Phloroglucinol protects primary neurons from β-amyloid-induced dendritic spine loss *in vitro* and shortens the latency to find the platform in a Morris water maze test in an Alzheimer's disease (AD) mouse model.[5] Phloroglucinol has been used to stain histological plant sections and in the synthesis of numerous natural products.[6,7] Phloroglucinol slows the frequency and decreases the amplitude of contraction in isolated rabbit and rat intestine at a concentration of 100 and 1 µM, respectively.[8] Formulations containing phloroglucinol have been used as antispasmodics.[9]

References

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