

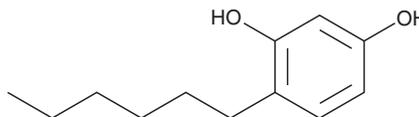
PRODUCT INFORMATION



4-Hexylresorcinol

Item No. 34824

CAS Registry No.: 136-77-6
Formal Name: 4-hexyl-1,3-benzenediol
Synonyms: 4-*n*-Hexylresorcinol, NSC 1570,
p-Hexylresorcinol
MF: C₁₂H₁₈O₂
FW: 194.3
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Synthetic



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

Laboratory Procedures

4-Hexylresorcinol is supplied as a solid. A stock solution may be made by dissolving the 4-hexylresorcinol in the solvent of choice, which should be purged with an inert gas. 4-Hexylresorcinol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 4-hexylresorcinol in these solvents is approximately 30 mg/ml.

4-Hexylresorcinol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-hexylresorcinol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4-Hexylresorcinol has a solubility of approximately 0.20 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

4-Hexylresorcinol is an alkylresorcinol that has been found in rye.¹ 4-Hexylresorcinol-containing lozenges are active against *S. aureus*, *S. pyogenes*, *M. catarrhalis*, *H. influenzae*, and *F. necrophorum* in an *in vitro* model of oral transmucosal delivery.² It increases the activities of glutathione peroxidase (GPX), glutathione reductase (GR), and catalase in isolated human peripheral blood lymphocytes when used at concentrations of 25, 50, or 100 μM.³ 4-Hexylresorcinol (2.5 mg/kg) in combination with cisplatin (Item No. 13119) reduces tumor growth and increases survival in a patient-derived xenograft (PDX) mouse model of oral mucosal melanoma.⁴ Formulations containing 4-hexylresorcinol have been used as food additives to prevent browning in produce and shrimp.

References

1. Mejbaum-Katzenellenbogen, W., Tłuścik, F., Kozubek, A., *et al.* Alkylresorcinols in rye (*Secale cereale* L.) grains. I. Micromethod for determination of alkyl derivatives of resorcinol in rye grain. *Acta Soc. Bot. Pol.* **44(4)**, 479-489 (2015).
2. Matthews, D., Adegoke, O., and Shephard, A. Bactericidal activity of hexylresorcinol lozenges against oropharyngeal organisms associated with acute sore throat. *BMC Res. Notes* **13(1)**, 99 (2020).
3. Yen, G.-C., Duh, P.-D., and Lin, C.-W. Effects of resveratrol and 4-hexylresorcinol on hydrogen peroxide-induced oxidative DNA damage in human lymphocytes. *Free Radic. Res.* **37(5)**, 509-514 (2003).
4. Lee, S.-W., Kim, S.-G., Park, Y.-W., *et al.* Cisplatin and 4-hexylresorcinol synergise to decrease metastasis and increase survival rate in an oral mucosal melanoma xenograft model: A preliminary study. *Tumour Biol.* **34(3)**, 1595-1603 (2013).

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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