

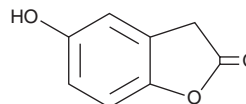
PRODUCT INFORMATION



Homogentisic Acid lactone

Item No. 41254

CAS Registry No.: 2688-48-4
Formal Name: 5-hydroxy-2(3H)-benzofuranone
Synonyms: Homogentisic Acid γ -lactone, NSC 61996
MF: $C_8H_6O_3$
FW: 150.1
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Synthetic



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

Laboratory Procedures

Homogentisic acid lactone is supplied as a crystalline solid. A stock solution may be made by dissolving the homogentisic acid lactone in the solvent of choice, which should be purged with an inert gas. Homogentisic acid lactone is soluble (≥ 10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

Homogentisic acid lactone is a fungal metabolite that has been found in the fungus WF5, has fungicidal activity, and is the lactonized form of homogentisic acid (Item No. 20045), an intermediate in aromatic amino acid metabolism.¹ It is active against the plant pathogenic fungus *F. graminearum*. Homogentisic acid lactone has been used as a substrate in the determination of serum paraoxonase/arylesterase 1 (PON1) activity and the chemiluminescent detection of HRP release from liposomes.^{2,3} It is an intermediate in the synthesis of LD-2, a near-infrared probe for the imaging of lipid droplets in live cells.⁴

References

1. Mousa, W.K., Schwan, A.L., and Raizada, M.N. Characterization of antifungal natural products isolated from endophytic fungi of finger millet (*Eleusine coracana*). *Molecules* **21**(9), 1171 (2016).
2. Bełtowski, J., Wójcicka, G., and Jamroz, A. Leptin decreases plasma paraoxonase 1 (PON1) activity and induces oxidative stress: The possible novel mechanism for proatherogenic effect of chronic hyperleptinemia. *Atherosclerosis* **170**(1), 21-29 (2003).
3. Kamidate, T., Kikuchi, N., Ishida, A., *et al.* Determination of peroxidase encapsulated in liposomes using homogentisic acid γ -lactone chemiluminescence. *Anal. Sci.* **21**(6), 701-704 (2005).
4. Wu, X., Wang, X., Li, Y., *et al.* A near-infrared probe for specific imaging of lipid droplets in living cells. *Anal. Chem.* **94**(11), 4881-4888 (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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