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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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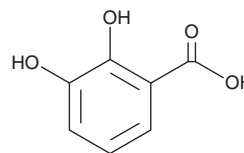
PRODUCT INFORMATION



2,3-Dihydroxybenzoic Acid

Item No. 35635

CAS Registry No.:	303-38-8
Synonyms:	Catecholcarboxylic Acid, 2,3-DHBA, NSC 27435, 2-Pyrocatechuic Acid, <i>o</i> -Pyrocatechuic Acid, <i>ortho</i> -Pyrocatechuic Acid
MF:	C ₇ H ₆ O ₄
FW:	154.1
Purity:	≥95%
Supplied as:	A 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

2,3-Dihydroxybenzoic acid is supplied as a solid. A stock solution may be made by dissolving the 2,3-dihydroxybenzoic acid in the solvent of choice, which should be purged with an inert gas. 2,3-Dihydroxybenzoic acid is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

2,3-Dihydroxybenzoic acid is a phenol that has been found in *F. inermis*, has antifungal and antioxidant activities, and is an active metabolite of the NSAID and COX inhibitor aspirin (Item No. 70260) and its metabolite salicylic acid.¹⁻⁴ It is formed from salicylic acid by the cytochrome P450 (CYP) isoform CYP2E1 in human liver microsomes.¹ It is active against the opportunistic fungi *A. fumigatus*, *A. flavus*, *A. niger*, and *Chrysosporium*.³ 2,3-Dihydroxybenzoic acid (1 μM) reduces apoptosis, increases autophagy, glutathione (GSH) levels, and superoxide dismutase (SOD) activity, and reduces glutathione peroxidase (GPX) activity in primary rat embryonic H9c2 cardiomyocytes under high-glucose and high-palmitic acid conditions as an *in vitro* model of diabetic cardiomyopathy.⁴

References

- Bojić, M., Sedgeman, C.A., Nagy, L.D., *et al.* Aromatic hydroxylation of salicylic acid and aspirin by human cytochromes P450. *Eur. J. Pharm. Sci.* **73**, 49-56 (2015).
- Grootveld, M. and Halliwell, B. 2,3-Dihydroxybenzoic acid is a product of human aspirin metabolism. *Biochem. Pharmacol.* **37(2)**, 271-280 (1988).
- PJ, B., Shibumon, G., Sunny, K., *et al.* 2, 3-dihydroxybenzoic acid: An effective antifungal agent isolated from *Flacourtia inermis* fruit. *Int. J. Pharm. Clin. Res.* **2(3)**, 101-105 (2010).
- García-Díez, E., Pérez-Jiménez, J., Martín, M.Á., *et al.* (-)-Epicatechin and colonic metabolite 2,3-dihydroxybenzoic acid, alone or in combination with metformin, protect cardiomyocytes from high glucose/high palmitic acid-induced damage by regulating redox status, apoptosis and autophagy. *Food Funct.* **15(5)**, 2536-2549 (2024).

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.

WARRANTY AND LIMITATION OF REMEDY

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