

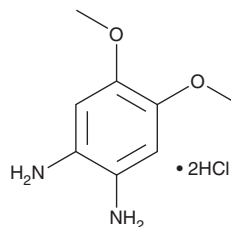
PRODUCT INFORMATION



1,2-Diamino-4,5-dimethoxybenzene (hydrochloride)

Item No. 17644

CAS Registry No.: 131076-14-7
Formal Name: 4,5-dimethoxy-1,2-benzenediamine, dihydrochloride
Synonym: DDB
MF: C₈H₁₂N₂O₂ • 2HCl
FW: 241.1
Purity: ≥95%
UV/Vis.: λ_{max}: 240, 298 nm
Ex./Em. Max: 361/448 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

1,2-Diamino-4,5-dimethoxybenzene (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2-diamino-4,5-dimethoxybenzene (hydrochloride) in the solvent of choice. 1,2-Diamino-4,5-dimethoxybenzene (hydrochloride) is soluble in the organic solvent methanol, which should be purged with an inert gas. 1,2-Diamino-4,5-dimethoxybenzene (hydrochloride) is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

1,2-Diamino-4,5-dimethoxybenzene is an aromatic diamine that reacts with aldehydes to produce highly fluorescent benzimidazole derivatives with excitation/emission spectra of 361/448 nm.¹ It can be reacted with ketones and carbonyls, including stress compounds such as glyoxal and methylglyoxal, to form fluorescent adducts that can be separated and quantitated by reversed-phase high-performance liquid chromatography.²

References

1. Nakamura, M., Hara, S., Yamaguchi, M., *et al.* 1,2-Diamino-4,5-methylenedioxybenzene as a highly sensitive fluorogenic reagent for α-keto acids. *Chem. Pharm. Bull. (Tokyo)* **35(2)**, 687-692 (1987).
2. McLellan, A.C., Phillips, S.A., and Thornalley, P.J. The assay of methylglyoxal in biological systems by derivatization with 1,2-diamino-4,5-dimethoxybenzene. *Anal. Biochem.* **206(1)**, 17-23 (1992).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/02/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM