

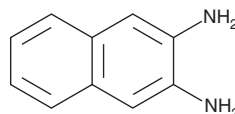
PRODUCT INFORMATION



2,3-Diaminonaphthalene

Item No. 36265

CAS Registry No.: 771-97-1
Formal Name: 2,3-naphthalenediamine
Synonyms: DAN, NSC 62692
MF: C₁₀H₁₀N₂
FW: 158.2
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 247 nm
Supplied as: A 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

2,3-Diaminonaphthalene (DAN) is supplied as a solid. A stock solution may be made by dissolving the DAN in the solvent of choice, which should be purged with an inert gas. DAN is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DAN in these solvents is approximately 14 and 10 mg/ml, respectively.

Description

DAN is a fluorometric reagent for selenium and nitric oxide (NO).¹⁻³ Upon binding to selenium, piarselenol is formed, which displays excitation/emission maxima of 365 and 525 nm, respectively.² Upon binding to nitrite, the end product of the reaction between NO and oxygen in aqueous media, 1-(H)-naphthotriazole is formed, which displays excitation/emission maxima of 360 and 440 nm, respectively.³ DAN has been used in the detection of selenium in river water samples.¹

References

1. Suzuki, Y., Hashigaya, N., and Kawakubo, S. Development of a simple and low-cost device for fluorometric determination of selenium in water samples. *Anal. Sci.* **26(6)**, 719-722 (2010).
2. Bayfield, R.F. and Romalis, L.F. pH Control in the fluorometric assay for selenium with 2,3-diaminonaphthalene. *Anal. Biochem.* **144(2)**, 569-576 (1985).
3. Kleinhenz, D.J., Fan, X., Rubin, J., et al. Detection of endothelial nitric oxide release with the 2,3-diaminonaphthalene assay. *Free Radic. Biol. Med.* **34(7)**, 856-861 (2003).

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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