

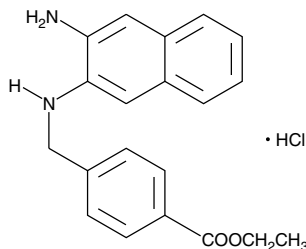
Product Information



DAN-1 EE (hydrochloride)

Item No. 85070

CAS Registry No.: 1049720-51-5
Formal Name: 4-[[[(3-amino-2-naphthalenyl)amino]methyl]-benzoic acid, ethyl ester, monohydrochloride
MF: C₂₀H₂₀N₂O₂ • HCl
FW: 356.9
Purity: ≥95%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol
UV/Vis.: λ_{max}: 251 nm



Laboratory Procedures

For long term storage, we suggest that DAN-1 EE (hydrochloride) be stored as supplied at -20°C. It should be stable for at least one year.

DAN-1 EE (hydrochloride) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of DAN-1 EE (hydrochloride) in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of DAN-1 EE (hydrochloride) is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of DAN-1 EE (hydrochloride) in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

DAN-1 EE is a fluorescent indicator for the bioimaging of nitric oxide (NO).¹ DAN-1 EE is a cell permeable derivative of DAN (diaminonaphthalene), a molecule which has been used for several years in the quantitation of nitrate and nitrite using fluorescence spectroscopy.^{2,3} Upon entry into the cell, DAN-1 EE is transformed into the less cell permeable DAN-1 by cellular esterases thus preventing loss of signal due to diffusion of the molecule from the cell. Intracellular formation of NO can be monitored using excitation and emission wavelengths of 360-380 nm and 420-450 nm, respectively.¹

References

1. Kojima, H., Sakurai, K., Kikuchi, K., *et al.* Development of a fluorescent indicator for the bioimaging of nitric oxide. *Biol. Pharm. Bull.* **20**, 1229-1232 (1997).
2. Misko, T.P., Schilling, R.J., Salvemini, D., *et al.* A fluorometric assay for the measurement of nitrite in biological samples. *Anal. Biochem.* **214**, 11-16 (1993).
3. Miles, A.M., Chen, Y., Owens, M.W., *et al.* Fluorometric determination of nitric oxide. *Methods* **7**, 40-47 (1995).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/85070

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 10/30/2013

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com