

PRODUCT INFORMATION



DAN-1 EE (hydrochloride)

Item No. 85070

CAS Registry No.: 1049720-51-1

Formal Name: 4-[[(3-amino-2-naphthalenyl)amino]methyl]-benzoic acid, ethyl ester, monohydrochloride

MF: C₂₀H₂₀N₂O₂ • HCl

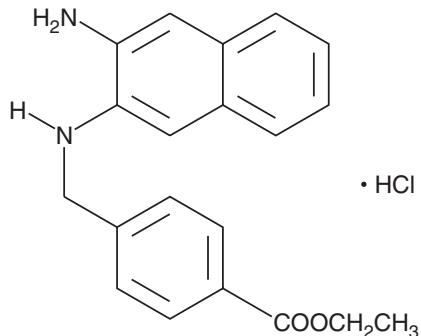
FW: 356.9

Purity: ≥95%

Supplied as: A 10 mg/ml solution in ethanol

Storage: -20°C

Stability: ≥1 year



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

Laboratory Procedures

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.

Description

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 nitrate 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).

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.

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