

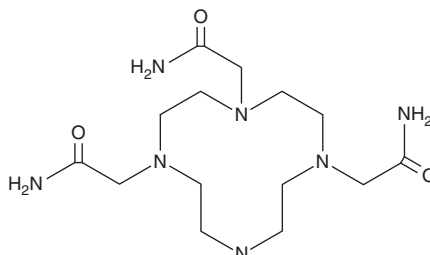
PRODUCT INFORMATION



DOTAM

Item No. 43657

CAS Registry No.: 157599-02-5
Formal Name: 1,4,7,10-tetraazacyclododecane-
1,4,7,10-tetraacetamide
MF: $C_{16}H_{32}N_8O_4$
FW: 400.5
Purity: $\geq 98\%$
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

DOTAM is supplied as a solid. A stock solution may be made by dissolving the DOTAM in the solvent of choice, which should be purged with an inert gas. DOTAM is slightly soluble (0.1-1 mg/ml) in acetonitrile.

DOTAM is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

DOTAM is a macrocyclic chelator.¹ It has been used as a starting material in the synthesis of siderophore mimetics for the delivery of antibiotics.²

References

1. Nagata, M.K., Brauchle, P.S., Wang, S., *et al.* Correlation of solid state and solution coordination numbers with infrared spectroscopy in five-, six-, and eight-coordinate transition metal complexes of DOTAM. *Polyhedron* **114**, (2016).
2. Fritsch, S., Gasser, V., Peukert, C., *et al.* Uptake mechanisms and regulatory responses to MECAM- and DOTAM-based artificial siderophores and their antibiotic conjugates in *Pseudomonas aeruginosa*. *ACS Infect. Dis.* **8**(6), 1134-1146 (2022).

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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