

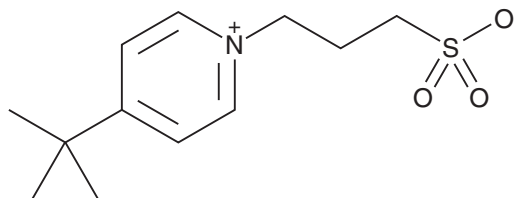
PRODUCT INFORMATION



NDSB-256-4T

Item No. 17443

CAS Registry No.: 570412-84-9
Formal Name: 4-(1,1-dimethylethyl)-1-(3-sulfopropyl)-pyridinium, inner salt
MF: $C_{12}H_{19}NO_3S$
FW: 257.3
Purity: $\geq 98\%$
Supplied as: A solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

NDSB-256-4T is supplied as a solid. A stock solution may be made by dissolving the NDSB-256-4T in the solvent of choice, which should be purged with an inert gas. NDSB-256-4T is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

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. Organic solvent-free aqueous solutions of NDSB-256-4T can be prepared by directly dissolving the solid in aqueous buffers. NDSB 256-4T is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

NDSB-256-4T is a zwitterionic non-detergent sulfobetaine (NDSB).¹ It improves the renaturation yield of unfolded hen lysozyme or the unfolded $\beta 2$ subunit of *E. coli* tryptophan synthase when used at concentrations of 0.6 and 1 M, respectively, in renaturation buffer.² NDSB-256-4T (0.2 mg/ml) enhances electron extraction and transport, improves interfacial contact, and increases power conversion efficiency when used to modify the tin oxide electron transport layer in inverted organic solar cells.³

References

1. Frederickson, M., Vuillard, L., and Abell, C. Novel selenium containing non-detergent sulphobetaines. *Tetrahedron Lett.* **44**, 7925-7928 (2003).
2. Expert-Bezançon, N., Rabilloud, T., Vuillard, L., et al. Physical-chemical features of non-detergent sulfobetaines active as protein-folding helpers. *Biophys. Chem.* **100**(1-3), 469-479 (2003).
3. Tran, V.-H., Kim, S.-K., and Lee, S.-H. Zwitterion nondetergent sulfobetaine-modified SnO_2 as an efficient electron transport layer for inverted organic solar cells. *ACS Omega* **4**(21), 19225-19237 (2019).

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, 05/16/2024

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