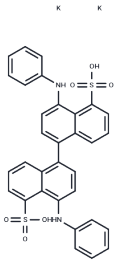
Data Sheet (Cat.No.T36956)

TargetMol

Bis-ANS dipotassium

Chemical Properties



CAS No. : 65664-81-5

Formula: C32H22K2N2O6S2

Molecular Weight: 672.85

Storage: Keep away from moistureKeep away from direct sunlight
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Bis-ANS dipotassium, as a type of protein fluorescent probe, can specifically bind to tubulin with a dissociation constant (Kd) of 2 μM [1]. Meanwhile, Bis-ANS dipotassium is also an efficient biphasic regulator of protein liquid-liquid phase separation (LLPS), exerting a significant concentration-dependent regulatory effect: it promotes liquid-liquid phase separation at low concentrations while exerting an inhibitory effect at high concentrations [2].
Targets(IC50)	Microtubule Associated
In vitro	Methods: Protein-related detection and regulation experiments were performed using the Bis-ANS dipotassium fluorescent molecule. Results: Bis-ANS dipotassium is a divalent naphthalenesulfonate fluorescent molecule with an anilino group. It can be used to detect exposed hydrophobic patches on proteins, monitor the formation of protein aggregates, and modulate liquid-liquid phase separation of the low-complexity domain (LCD) of TDP-43 [2]. Methods: L. cuprina was treated with Argifin. Results: Argifin exhibited an inhibitory effect on molting in L. cuprina [1].

Solubility Information

Solubility	DMSO: 24 mg/mL (35.67 mM),Sonication is recommended. DMF: 30 mg/mL (44.59 mM),Sonication is recommended. Ethanol: Slightly Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4862 mL	7.4311 mL	14.8622 mL
5 mM	0.2972 mL	1.4862 mL	2.9724 mL
10 mM	0.1486 mL	0.7431 mL	1.4862 mL
50 mM	0.0297 mL	0.1486 mL	0.2972 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

P Horowitz, et al. Bis(1,8-anilinonaphthalenesulfonate). A novel and potent inhibitor of microtubule assembly. J Biol Chem. 1984 Dec 10;259(23):14647-50.
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Pastukhov, A.V., and Ropson, I.J. Fluorescent dyes as probes to study lipid-binding proteins. Proteins 53(3), 607-615 (2003).
Mozes, E., Hunya, A., Toth, A., et al. A novel application of the fluorescent dye bis-ANS for labeling neurons in acute brain slices. Brain Res. Bull. 86(3-4), 217-221 (2011).
Horowitz, P., Prasad, V., and Luduena, R.F. Bis(1,8-anilinonaphthalenesulfonate). A novel and potent inhibitor of microtubule assembly. J. Biol. Chem. 259(23), 14647-14650 (1984).
Mazumdar, M., Parrack, P.K., Mukhupadbhyay, K., et al. Bis-ANS as a specific inhibitor for microtubule-associated protein induced assembly of tubulin. Biochemistry 31(28), 6470-6474 (1992).