

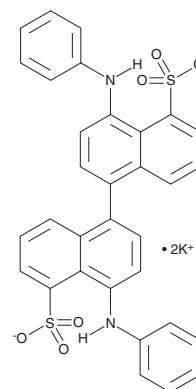
PRODUCT INFORMATION



bis-ANS (potassium salt)

Item No. 21820

CAS Registry No.:	65664-81-5
Formal Name:	4,4'-bis(phenylamino)-[1,1'-binaphthalene]-5,5'-disulfonic acid, dipotassium salt
Synonym:	4,4'-Dianilino-1,1'-binaphthyl-5,5'-disulfonic Acid
MF:	C ₃₂ H ₂₂ N ₂ O ₆ S ₂ • 2K
FW:	672.9
Purity:	≥95%
UV/Vis.:	λ _{max} : 222, 275, 395 nm
Ex./Em. Max:	390/523 (free) and 484-496 nm (bound)
Supplied as:	A crystalline 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

bis-ANS (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the bis-ANS (potassium salt) in the solvent of choice, which should be purged with an inert gas. bis-ANS (potassium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of bis-ANS (potassium salt) in these solvents is approximately 30 mg/ml. bis-ANS (potassium salt) is also slightly soluble in ethanol.

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 bis-ANS (potassium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of bis-ANS (potassium salt) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

bis-ANS is a high-affinity non-covalent extrinsic fluorescent dye used to analyze protein conformation.¹ Its predominant interaction with proteins is through its hydrophobic phenyl and naphthyl rings.² bis-ANS has an excitation maxima of 390 nm.³ It has an emission maximum of 523 nm when free in solution but undergoes a blue shift with an increase in fluorescence intensity when bound to protein; for example, when bound to intestinal fatty acid binding protein (IFABP) it has emission maxima of 484-496 nm. bis-ANS has been used to label mechanically damaged neurons in acute brain slices.⁴ It also potently inhibits microtubule assembly.^{5,6}

References

1. Hawe, A., Sutter, M., and Jiskoot, W. *Pharm. Res.* **25**(7), 1487-1499 (2008).
2. Bothra, A., Bhattacharyya, A., Mukhopadhyay, C., et al. *J. Biomol. Struct. Dyn.* **15**(5), 959-966 (1998).
3. Pastukhov, A.V. and Ropson, I.J. *Proteins* **53**(3), 607-615 (2003).
4. Mozes, E., Hunya, A., Toth, A., et al. *Brain Res. Bull.* **86**(3-4), 217-221 (2011).
5. Horowitz, P., Prasad, V., and Luduena, R.F. *J. Biol. Chem.* **259**(23), 14647-14650 (1984).
6. Mazumdar, M., Parrack, P.K., Mukhopadhyay, K., et al. *Biochemistry* **31**(28), 6470-6474 (1992).

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.

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