1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{32}\text{H}_{22}\text{K}_{2}\text{N}_{2}\text{O}_{6}\text{S}_{2} \)

Batch Molecular Weight: 672.85

Physical Appearance: Green solid

Solubility: DMSO to 100 mM, water to 20 mM

Storage: Store at RT

Batch Molecular Structure:

\[
\text{K}^+ \overset{\text{O}_3\text{S}}{\text{-}} \text{NH} \overset{\text{S}_{\text{O}_3}}{\text{-}} \text{NH} \overset{\text{K}^+}{\text{-}}
\]

2. ANALYTICAL DATA

HPLC: Shows 97.7% purity

\( ^1\text{H NMR} \): Consistent with structure

Mass Spectrum: Consistent with structure
Product Information

Product Name: Bis-ANS
CAS Number: 65664-81-5
IUPAC Name: 4,4’-Bis(phenylamino)-[1,1'-binaphthalene]-5,5'-disulfonic acid dipotassium salt

Description:
Fluorescent probe for nonpolar cavities in proteins. Used to detect Aβ fibre (Kd = ~80 nM); exhibits distinct fluorescent profiles for fibres and oligomers. Fluoresces in hydrophobic environments, negligible fluorescence in water solutions. Excitation/emission λ ~ 355/520 nm at pH 7.4.

Physical and Chemical Properties:
Batch Molecular Formula: C₃₂H₂₂K₂N₂O₈S₂
Batch Molecular Weight: 672.85
Physical Appearance: Green solid
Minimum Purity: >97%

Storage: Store at RT
CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:
DMSO to 100 mM
water to 20 mM

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).
Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:
Younan et al (2015) A comparison of three fluorophores for the detection of amyloid fibers and prefibrillar oligomeric assemblies. ThT (Thioflavin T); ANS (1-Anilinonaphthalene-8-sulfonic Acid); and bisANS (4,4’-Dianilino-1,1’-binaphthyl-5,5’-disulfonic Acid). Biochemistry 54 4297. PMID: 26087242.