

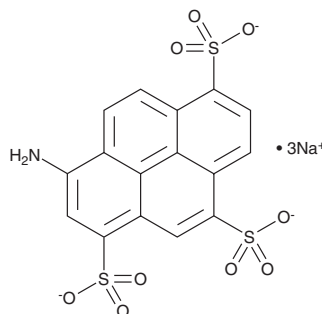
PRODUCT INFORMATION



8-Aminopyrene-1,3,6-trisulfonic Acid (sodium salt)

Item No. 23098

CAS Registry No.: 196504-57-1
Formal Name: 8-amino-1,3,6-pyrenetrisulfonic acid, trisodium salt
Synonym: APTS
MF: C₁₆H₈NO₉S₃ • 3Na
FW: 523.4
Purity: ≥95%
UV/Vis.: λ_{max}: 203, 435 nm
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

APTS is supplied as a crystalline solid. A stock solution may be made by dissolving the APTS (sodium salt) in the solvent of choice, which should be purged with an inert gas. APTS (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of APTS (sodium salt) in these solvents is approximately 2 and 0.2 mg/ml, respectively.

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 APTS (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of APTS (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

8-Aminopyrene-1,3,6-trisulfonic acid (APTS) is an anionic fluorescent dye with excitation/emission spectra of 425/503 nm, respectively.¹ It forms a ground state complex with viologen-type quenchers, inducing a red-shift in the absorbance spectrum from 425 to 464 nm. APTS is pH insensitive, with the emission maximum remaining constant over the pH range of 4-10. It can be used in solution or immobilized through attachment of an aldehyde functionalized monomer by reductive amination without significantly changing fluorescence intensity. APTS has been used as a reporter for glucose sensing and for the detection of other saccharides.^{1,2}

References

1. Sharrett, Z., Gamsey, S., Hirayama, L., *et al.* Exploring the use of APTS as a fluorescent reporter dye for continuous glucose sensing. *Org. Biomol. Chem.* **7**(7), 1461-1470 (2009).
2. Cordes, D.B. and Singaram, B. A unique, two-component sensing system for fluorescence detection of glucose and other carbohydrates. *Pure Appl. Chem.* **84**(11), 2183-2202 (2012).

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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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