

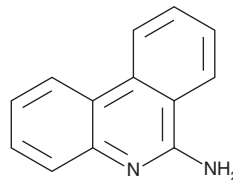
# PRODUCT INFORMATION



## 6-Aminophenanthridine

Item No. 26420

CAS Registry No.: 832-68-8  
Formal Name: 6-phenanthridinamine  
Synonym: 6AP  
MF: C<sub>13</sub>H<sub>10</sub>N<sub>2</sub>  
FW: 194.2  
Purity: ≥95%  
Supplied as: A 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

6-Aminophenanthridine is supplied as a solid. A stock solution may be made by dissolving the 6-aminophenanthridine in the solvent of choice, which should be purged with an inert gas. 6-Aminophenanthridine is soluble in organic solvents such as ethanol and DMSO.

### Description

6-Aminophenanthridine is an antiprion agent.<sup>1</sup> It inhibits prion formation in yeast- and mammalian-based screening assays when used alone and, to a greater extent, when used in combination with the  $\alpha_2$ -adrenergic receptor agonist guanabenz (Item No. 10851). 6-Aminophenanthridine (300  $\mu$ M) inhibits protein folding activity of the ribosome (PFAR) by directly competing with protein substrates for the active site and decreases the yield of refolded protein without affecting the refolding rate.<sup>1-3</sup> It prevents progressive wing position defects in a *Drosophila* model of oculopharyngeal muscular dystrophy (OPMD) when larvae are raised on medium containing doses ranging from 300 to 400  $\mu$ M and in adults following dietary administration of 1-3 mM doses.<sup>4</sup> 6-Aminophenanthridine also reduces muscle degeneration and decreases the number of nuclear inclusions in thoracic muscle in a *Drosophila* model of OPMD.

### References

1. Tribouillard-Tanvier, D., Dos Reis, S., Gug, F., *et al.* Protein folding activity of ribosomal RNA is a selective target of two unrelated antiprion drugs. *PLoS One* **3(5):e2174**, (2008).
2. Pang, Y., Kurella, S., Voisset, C., *et al.* The antiprion compound 6-aminophenanthridine inhibits the protein folding activity of the ribosome by direct competition. *J. Biol. Chem.* **288(26)**, 19081-19089 (2013).
3. Banerjee, D., Vovusha, H., Pang, Y., *et al.* Spectroscopic and DFT studies on 6-Aminophenanthridine and its derivatives provide insights in their activity towards ribosomal RNA. *Biochimie* **97**, 194-199 (2014).
4. Barbezier, N., Chartier, A., Bidet, Y., *et al.* Antiprion drugs 6-aminophenanthridine and guanabenz reduce PABPN1 toxicity and aggregation in oculopharyngeal muscular dystrophy. *EMBO Mol. Med.* **3(1)**, 35-49 (2011).

#### 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, 11/21/2022

#### 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