

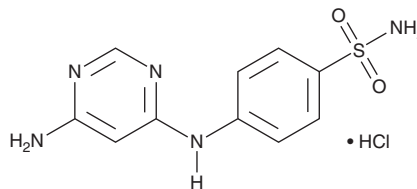
PRODUCT INFORMATION



PNU 112455A

Item No. 33438

CAS Registry No.: 21886-12-4
Formal Name: 4-[(6-amino-4-pyrimidinyl)amino]-benzenesulfonamide, monohydrochloride
MF: C₁₀H₁₁N₅O₂S • HCl
FW: 301.8
Purity: ≥95%
UV/Vis.: λ_{max}: 221, 255, 304 nm
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

PNU 112455A is supplied as a solid. A stock solution may be made by dissolving the PNU 112455A in the solvent of choice, which should be purged with an inert gas. PNU 112455A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PNU 112455A in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

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 PNU 112455A can be prepared by directly dissolving the solid in aqueous buffers. The solubility of PNU 112455A in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PNU 112455A is an inhibitor of cyclin-dependent kinase 2 (Cdk2) and Cdk5 ($K_i = 2 \mu\text{M}$ for both).¹ It inhibits hyperphosphorylation of tau and cell death induced by the synthetic glucocorticoid dexamethasone (Item No. 11015) in PC12 rat adrenal medulla cells expressing human tau when used at concentrations of 1 and 10 μM .²

References

1. Clare, P.M., Poorman, R.A., Kelley, L.C., *et al.* The cyclin-dependent kinases cdk2 and cdk5 act by a random, anticooperative kinetic mechanism. *J. Biol. Chem.* **276(51)**, 48292-48299 (2001).
2. Sotiropoulos, I., Catania, C., Riedemann, T., *et al.* Glucocorticoids trigger Alzheimer disease-like pathobiochemistry in rat neuronal cells expressing human tau. *J. Neurochem.* **107(2)**, 385-397 (2008).

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