

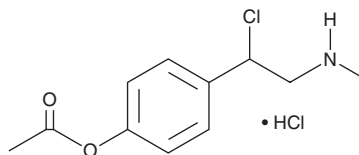
PRODUCT INFORMATION



CpdA

Item No. 21438

CAS Registry No.: 14593-25-0
Formal Name: 4-[1-chloro-2-(methylamino)ethyl]-phenol
1-acetate, monohydrochloride
Synonym: Compound A
MF: C₁₁H₁₄ClNO₂ • HCl
FW: 264.1
Purity: ≥98%
UV/Vis.: λ_{max}: 223 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

CpdA is supplied as a crystalline solid. A stock solution may be made by dissolving the CpdA in the solvent of choice. CpdA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of CpdA in these solvents is approximately 1, 25, and 5 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 CpdA can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of CpdA in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

CpdA is a non-steroidal selective glucocorticoid receptor modulator.¹ It is an aziridine precursor that can infiltrate cells and is translocated to the nucleus.^{1,2} It inhibits glucocorticoid receptor dimerization, which prevents transcription of gene targets such as NF-κB and subsequent cytokines through transrepression.³ Studies have shown contradictory results for binding affinity of CpdA compared with dexamethasone (Item No. 11015) that were either higher (4-fold, IC₅₀ = 6.4 nM and 25.9 nM, respectively, in L929sA cells) or lower (63-fold, K_d = 81.8 nM and 1.29 nM, respectively, in BWTG3 cells) in whole cell binding assays.^{2,3}

References

1. Lesovaya, E., Yemelyanov, A., Swart, A.C., *et al.* Discovery of Compound A - a selective activator of the glucocorticoid receptor with anti-inflammatory and anti-cancer activity. *Oncotarget* **6(31)**, 30730-30744 (2015).
2. De Bosscher, K., Vanden Berghe, W., Beck, I.M., *et al.* A fully dissociated compound of plant origin for inflammatory gene repression. *Proc. Natl. Acad. Sci. USA* **102(44)**, 15827-15832 (2005).
3. Robertson, S., Allie-Reid, F., Vanden Berghe, W., *et al.* Abrogation of glucocorticoid receptor dimerization correlates with dissociated glucocorticoid behavior of compound a. *J. Biol. Chem.* **285(11)**, 8061-8075 (2010).

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, 12/05/2022

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