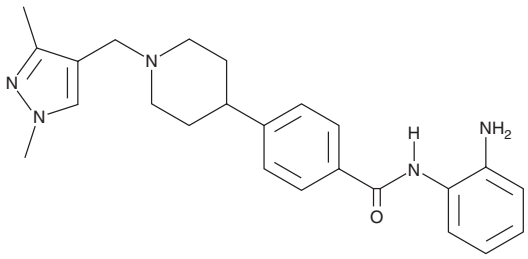
PRODUCT INFORMATION

CXD101

Item No. 21159

CAS Registry No.:	934828-12-3
Formal Name:	N-(2-aminophenyl)-4-[1-[(1,3-dimethyl-1H-pyrazol-4-yl)methyl]-4-piperidinyl]-benzamide
Synonyms:	AZD 9468, HDAC-IN-4, Zabadinostat
MF:	$C_{24}H_{29}N_5O$
FW:	403.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 232, 298 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

CXD101 is supplied as a crystalline solid. A stock solution may be made by dissolving the CXD101 in the solvent of choice, which should be purged with an inert gas. CXD101 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CXD101 in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

CXD101 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CXD101 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CXD101 has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CXD101 is a histone deacetylase 1 (HDAC1), HDAC2, and HDAC3 inhibitor (IC_{50}s = 63, 570, and 550 nM, respectively).[1] It increases acetylation of lysine 9 on histone H3 (H3K9Ac) in Colon-26 colon cancer cells when used at a concentration of 2.7 µM.[2] CXD101 (50 mg/kg per day) decreases tumor volume, reduces tumor levels of macrophages, and increases tumor levels of $Cd4^+$ and $Cd8^+$ T cells without affecting body weight in a Colon-26 murine colon cancer model. It increases serum levels of IgG and IgM antibodies thirty days after administration in mice immunized with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) spike glycoprotein.[3]

References

1. Eyre, T.A., Collins, G.P., Gupta, A., *et al.* A phase 1 study to assess the safety, tolerability, and pharmacokinetics of CXD101 in patients with advanced cancer. *Cancer* **125(1)**, 99-108 (2019).
2. Blaszczak, W., Liu, G., Zhu, H., *et al.* Immune modulation underpins the anti-cancer activity of HDAC inhibitors. *Mol. Oncol.* **15(12)**, 3280-3298 (2021).
3. Liu, G., Barczak, W., Lee, L.N., *et al.* The HDAC inhibitor zabadinostat is a systemic regulator of adaptive immunity. *Commun. Biol.* **6(1)**, 102 (2023).

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