PRODUCT INFORMATION

DC432 (trifluoroacetate salt)

Item No. 36980

Formal Name: (S)-N-1,28-diamino-6S-carbamoyl-9S,12S,15S,18S,21S-pentakis(3-guanidinopropyl)-1-imino-8,11,14,17,20,23-hexaoxo-2,7,10,13,16,19,22-heptaazaoctacosan-24S-yl)-1-(2-(4-hydroxyphenyl)acetyl) pyrrolidine-2-carboxamide, trifluoroacetate salt

MF: $C_{55}H_{100}N_{28}O_{10} \bullet XCF_3COOH$

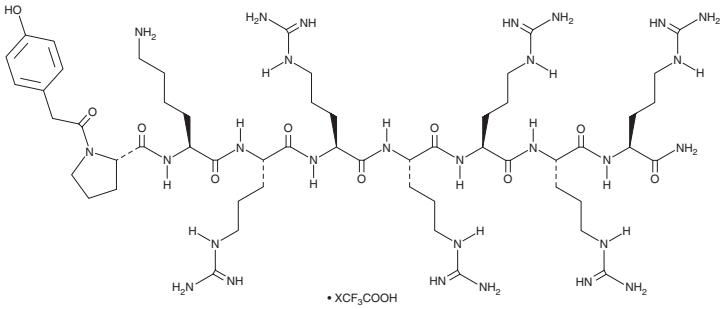
FW: 1,313.6

Purity: ≥98%

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

DC432 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the DC432 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. DC432 (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of DC432 (trifluoroacetate salt) in ethanol is approximately 2 mg/ml and approximately 10 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 DC432 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of DC432 (trifluoroacetate salt) in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DC432 is a cell-permeable peptide inhibitor of N-terminal Xaa-Pro-Lys N-methyltransferase 1 (NTMT1; IC_{50} = 0.054 µM).[1] It binds to NTMT1 and NTMT2 (K_ds = 0.3 and 1 µM, respectively) and inhibits N-terminal dimethylation of regulator of chromosome condensation 1 (RCC1) by NTMT1 in a cell-free assay when used at concentrations of 10 and 50 µM. DC432 (100 µM) reduces trimethylation of the RCC1 SPKRIA motif in HCT116 cells.

Reference

1. Mackie, B.D., Chen, D., Dong, G., *et al.* Selective peptidomimetic inhibitors of NTMT1/2: Rational design, synthesis, characterization, and crystallographic studies. *J. Med. Chem.* **63(17),** 9512-9522 (2020).

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
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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