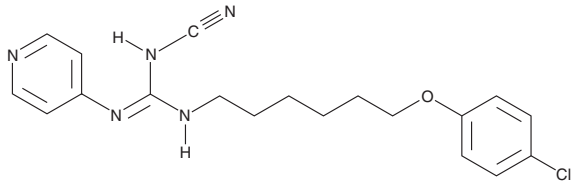
PRODUCT INFORMATION

CHS-828

Item No. 11021

CAS Registry No.: 200484-11-3
Formal Name: N-[6-(4-chlorophenoxy)hexyl]-N'-cyano-N''-4-pyridinyl-guanidine
Synonym: GMX 1778
MF: $C_{19}H_{22}ClN_5O$
FW: 371.9
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 231, 258 nm



Laboratory Procedures

For long term storage, we suggest that CHS-828 be stored as supplied at -20°C. It should be stable for at least two years.

CHS-828 is supplied as a crystalline solid. A stock solution may be made by dissolving the CHS-828 in the solvent of choice. CHS-828 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of CHS-828 in ethanol is approximately 0.5 mg/ml and approximately 25 mg/ml in DMSO and DMF.

CHS-828 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CHS-828 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CHS-828 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CHS-828 is a pyridyl cyanoguanidine anti-tumor agent that has been identified as a competitive inhibitor of Nampt as well as an inhibitor of NF-κB pathway activity.[1,2] CHS-828 has potent cytotoxic effects in human breast (IC_{50} = 7.3 nM) and lung cancer (IC_{50} = 0.5 nM) cells both *in vitro* and *in vivo*.[3] In nude mice bearing human tumor xenografts, CHS-828, at 20-50 mg/kg/day, inhibits the growth of MCF-7 breast cancer tumors and induces regression of NYH small cell lung cancer tumors.[3]

References

1. Hassan, S.B., Lövborg, H., Lindhagen, E., *et al*. CHS 828 kill tumour cells by inhibiting the nuclear factor-κB translocation but unlikely through down-regulation of proteasome. *Anticancer Res.* **26**, 4431-4436 (2006).
2. Olesen, U.H., Petersen, J.G., Garten, A., *et al*. Target enzyme mutations are the molecular basis for resistance towards pharmacological inhibition of nicotinamide phosphoribosyltransferase. *BMC Cancer* **10(677)**, 1-13 (2010).
3. Hjarnaa, P.-J.V., Jonsson, E., Latini, S., *et al*. CHS 828, a novel pyridyl cyanoguanidine with potent antitumor activity *in vitro* and *in vivo*. *Cancer Res.* **59**, 5751-5757 (1999).

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