

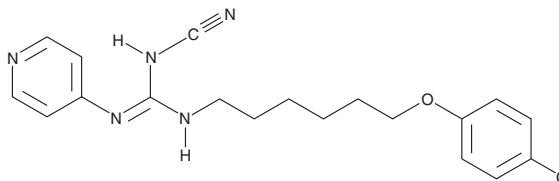
PRODUCT INFORMATION



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: C₁₉H₂₂ClN₅O
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 (IC₅₀ = 7.3 nM) and lung cancer (IC₅₀ = 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).

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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