

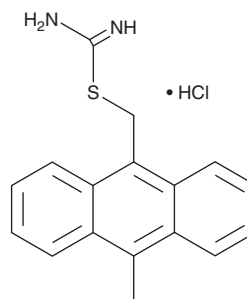
PRODUCT INFORMATION



NSC 146109 (hydrochloride)

Item No. 16430

CAS Registry No.: 59474-01-0
Formal Name: carbamimidothioic acid, (10-methyl-9-anthracenyl)methyl ester, monohydrochloride
Synonym: XI-011
MF: C₁₇H₁₆N₂S • HCl
FW: 316.8
Purity: ≥98%
UV/Vis.: λ_{max}: 260 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

NSC 146109 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the NSC 146109 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. NSC 146109 (hydrochloride) is soluble in organic solvents such as ethanol and DMSO. The solubility of NSC 146109 (hydrochloride) in these solvents is approximately 3 and 30 mg/ml, respectively.

Description

NSC 146109 is an activator of the tumor suppressor p53 that increases expression of p53 and the p53 target DR5 in wild-type and p53-knockout HCT116 colon adenocarcinoma cells.¹ It is selective for p53, having no effect on p73 expression in HCT116 cells at a concentration of 2 μM. NSC 146109 activates p53, which induces cell accumulation in the sub-G₀/G₁ phase and apoptosis in MCF-7 breast cancer cells.² It increases p53 expression, decreases expression of the p53 suppressor MDMX, and reduces viability in a panel of breast cancer cell lines when used at a concentration of 0.5 μM. NSC 146109 also reduces growth of AMC-HN9 head and neck carcinoma (HNC) cells *in vitro* and *in vivo* when administered alone or in combination with cisplatin (Item No. 13119) in a mouse xenograft model at a dose of 70 mg/kg.³

References

1. Wang, W., Kim, S.H., and El-Deiry, W.S. Small-molecule modulators of p53 family signaling and antitumor effects in p53-deficient human colon tumor xenografts. *Proc. Natl. Acad. Sci. U.S.A.* **103**(29), 11003-11008 (2006).
2. Wang, H. and Yan, C. A small-molecule p53 activator induces apoptosis through inhibiting MDMX expression in breast cancer cells. *Neoplasia* **13**(7), 611-619 (2011).
3. Roh, J.L., Park, J.Y., and Kim, E.H. XI-011 enhances cisplatin-induced apoptosis by functional restoration of p53 in head and neck cancer. *Apoptosis* **19**(11), 1594-1602 (2014).

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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