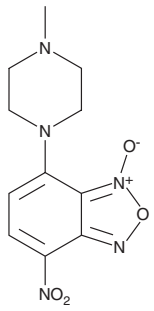
PRODUCT INFORMATION

NSC 207895

Item No. 27949

CAS Registry No.:	58131-57-0
Formal Name:	4-(4-methyl-1-piperazinyl)-7-nitro-2,1,3-benzoxadiazole, 3-oxide
Synonyms:	NSC 179940, XI-006
MF:	$C_{11}H_{13}N_5O_4$
FW:	279.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 230, 258, 348, 461 nm
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

NSC 207895 is supplied as a solid. A stock solution may be made by dissolving the NSC 207895 in the solvent of choice, which should be purged with an inert gas. NSC 207895 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NSC 207895 in these solvents is approximately 1, 2, and 15 mg/ml, respectively.

NSC 207895 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NSC 207895 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. NSC 207895 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

NSC 207895 is an inhibitor of the p53-binding protein MDMX.[1] It decreases MDMX promoter activity in a reporter assay using HT-1080 cells in a concentration-dependent manner. NSC 207895 (5 µmol/L) decreases the expression and protein levels of MDMX and increases the expression of the p53 target gene *CDKN1* (p21) in MCF-7 cells overexpressing *MDMX*. It also increases the expression of the pro-apoptotic genes *PUMA*, *Bax*, and *PIG3*. NSC 207895 (5 µmol/L) induces apoptosis and decreases cell viability in MCF-7 cells in a p53-dependent manner. It also induces p53-independent apoptosis in wild-type, mutated, and truncated p53 Ewing sarcoma cell lines (IC_{50}s = 98.9-1,613, 236-299, and 121-396 nM, respectively) selectively over wild-type and p53-null osteosarcoma cells (IC_{50}s = 3,690-5,416 and 2,143 nM, respectively).[1,2]

References

1. Wang, H., Ma, X., Ren, S., *et al.* A small-molecule inhibitor of MDMX activates p53 and induces apoptosis. *Mol. Cancer Ther.* **10(1)**, 69-79 (2011).
2. Pishas, K.I., Adwal, A., Neuhaus, S.J., *et al.* XI-006 induces potent p53-independent apoptosis in Ewing sarcoma. *Sci. Rep.* **5:11465** (2015).

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