# **PRODUCT** INFORMATION



**NMS-E973** 

Item No. 22352

CAS Registry No.:	1253584-84-7		
Formal Name:	5-[2,4-dihydroxy-6-(4-nitrophenoxy)		NO <sub>2</sub>
	phenyl]-N-(1-methyl-4-piperidinyl)-3-	Н Н	
	isoxazolecarboxamide	-N	
MF:	$C_{22}H_{22}N_4O_7$		
FW:	454.4		
Purity:	≥98%	0	
UV/Vis.:	λ <sub>max</sub> : 304 nm		
Supplied as:	A crystalline solid		но
Storage:	-20°C		HO' VOH
Stability:	≥4 years		
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.			

# Laboratory Procedures

NMS-E973 is supplied as a crystalline solid. A stock solution may be made by dissolving the NMS-E973 in the solvent of choice. NMS-E973 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of NMS-E973 in these solvents is approximately 30 mg/ml.

# Description

NMS-E973 is an inhibitor of heat shock protein 90 (HSP90;  $IC_{50}$  = 10 nM in a fluorescence polarization assay).<sup>1</sup> It decreases HER2 protein expression ( $IC_{50}$  = 110 nM) in BT474 breast cancer cells and inhibits the growth of a 16 cancer cell line panel ( $IC_{50}$ s = 13-362 nM).<sup>1,2</sup> NMS-E973 (60 mg/kg, i.v., per day for ten days) reduces tumor growth by 74% in an A2780 xenograft mouse model. It reduces expression of HSP90 client proteins, phosphorylated ERK and AKT, and total AKT in lysates from A2780 tumors. NMS-E973 also completely eradicates MOLM-13 acute myeloid leukemia tumors in a mouse xenograft model.<sup>1</sup>

# References

- 1. Brasca, M.G., Mantegani, S., Amboldi, N., et al. Discovery of NMS-E973 as novel, selective and potent inhibitor of heat shock protein 90 (Hsp90). Bioorg. Med. Chem. 21(22), 7047-7063 (2013).
- 2. Fogliatto, G., Gianellini, L., Brasca, M.G., et al. NMS-E973, a novel synthetic inhibitor of Hsp90 with activity against multiple models of drug resistance to targeted agents, including intracranial metastases. Clin. Cancer Res. 19(13), 3520-3532 (2013).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

## SAFETY DATA

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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