

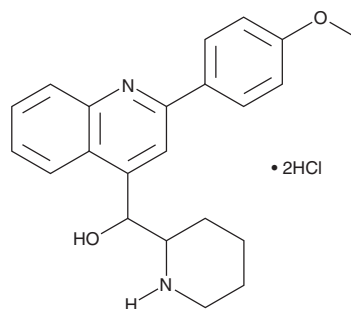
PRODUCT INFORMATION



NSC 23925

Item No. 21947

CAS Registry No.: 858474-14-3
Formal Name: 2-(4-methoxyphenyl)- α -2-piperidinyl-4-quinolinemethanol, dihydrochloride
MF: $C_{22}H_{24}N_2O_2 \cdot 2HCl$
FW: 421.4
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 217, 275, 338 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NSC 23925 is supplied as a crystalline solid. A stock solution may be made by dissolving the NSC 23925 in the solvent of choice, which should be purged with an inert gas. NSC 23925 is soluble in DMSO.

Description

NSC 23925 is a non-substrate inhibitor of P-glycoprotein (P-gp).¹ It selectively reverses multidrug resistance mediated by P-gp over resistance mediated by multidrug resistance-associated protein 1 (MRP1/ABCC1) or breast cancer resistance protein (BCRP/ABCG2). It resensitizes paclitaxel-resistant SKOV3_{TR} and OVCAR-8_{TR} cells to paclitaxel (Item No. 10461). NSC 23925 reverses P-gp efflux, increasing the intracellular accumulation of P-gp substrates, including calcein AM (Item No. 14948) in multidrug-resistant SKOV3_{TR} and OVCAR-8_{TR} cells. It prevents paclitaxel-induced overexpression of the P-gp gene *MDR1* and P-gp protein level increases in OVCAR-8 cells.² It also prevents the development of paclitaxel-induced multidrug resistance in a SKOV3 mouse xenograft model when administered at a dose of 50 mg/kg per day in combination with paclitaxel.

References

1. Duan, Z., Choy, E., and Hornicek, F.J. NSC23925, identified in a high-throughput cell-based screen, reverses multidrug resistance. *PLoS One* **4**(10), e7415 (2009).
2. Yang, X., Feng, Y., Gao, Y., et al. NSC23925 prevents the emergence of multidrug resistance in ovarian cancer *in vitro* and *in vivo*. *Gynecol. Oncol.* **137**(1), 134-142 (2015).

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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