

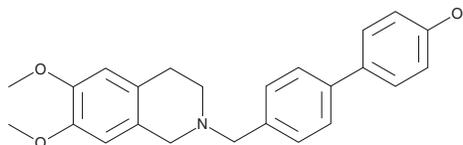
PRODUCT INFORMATION



MC70

Item No. 21330

CAS Registry No.: 1031367-64-2
Formal Name: 4'-[(3,4-dihydro-6,7-dimethoxy-2(1H)-isoquinolinyl)methyl]-[1,1'-biphenyl]-4-ol
MF: C₂₄H₂₅NO₃
FW: 375.5
Purity: ≥98%
UV/Vis.: λ_{max}: 281 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

MC70 is supplied as a crystalline solid. A stock solution may be made by dissolving the MC70 in the solvent of choice, which should be purged with an inert gas. MC70 is soluble in DMSO.

Description

MC70 is a P-glycoprotein (P-gp) inhibitor.¹ It inhibits the efflux of [³H]vinblastine by ATP binding cassette subfamily B member 1 (ABCB1) in Caco-2 colon cancer cells (EC₅₀ = 0.05 μM). MC70 also inhibits the efflux of rhodamine-123 (Item No. 16672) and calcein-AM (Item No. 14948) by breast cancer resistant protein (BCRP) and multidrug resistance-associated protein 1 (MRP1) in MDCK cells (EC₅₀s = 73 and 9.3 μM, respectively). MC70 (2 or 20 μM) enhances growth inhibition of adriamycin and doxorubicin-resistant (ADR) MCF-7/ADR breast cancer cells when used in combination with doxorubicin (Item No. 15007), but does not alter the effectiveness of doxorubicin on growth inhibition in Caco-2 cells.² It increases phosphorylation of p38 and JNK in Caco-2 cells and MCF-7/ADR cells when used at a concentration of 20 μM.

References

1. Colabufo, N.A., Berardi, F., Perrone, M.G., *et al.* Multi-drug-resistance-reverting agents: 2-Aryloxazole and 2-arylthiazole derivatives as potent BCRP or MRP1 inhibitors. *ChemMedChem* **4**(2), 188-195 (2009).
2. Azzariti, A., Quatrone, A.E., Porcelli, L., *et al.* MC70 potentiates doxorubicin efficacy in colon and breast cancer in vitro treatment. *Eur. J. Pharmacol.* **670**(1), 74-84 (2011).

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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