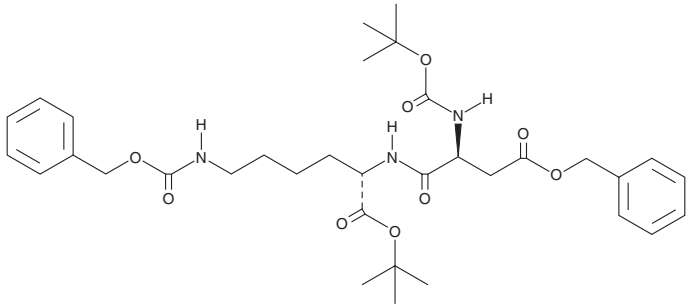
PRODUCT INFORMATION

Reversin 121

Item No. 18603

CAS Registry No.: 174630-04-7
Formal Name: 2-(1,1-dimethylethyl) 1-(phenylmethyl) ester N-[(1,1-dimethylethoxy)carbonyl]-L-a-aspartyl-N^6-[(phenylmethoxy) carbonyl]-L-lysine
MF: $C_{34}H_{47}N_3O_9$
FW: 641.8
Purity: ≥98%
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

Reversin 121 is supplied as a crystalline solid. A stock solution may be made by dissolving the reversin 121 in the solvent of choice, which should be purged with an inert gas. Reversin 121 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of reversin 121 in these solvents is approximately 12, 20, and 25 mg/ml, respectively.

Reversin 121 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, reversin 121 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Reversin 121 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Reversin 121 is a hydrophobic peptide chemosensitizer that can reverse P-glycoprotein-mediated multidrug resistance. It binds to the P-glycoprotein multidrug transporter (MDR1) with a K_d value of 77 nM.[1,2] Reversin 121 modulates P-glycoprotein ATPase activity in *Sf*9 insect cell membranes expressing human MDR1, plasma membrane vesicles from multidrug-resistant cells, and reconstituted proteoliposomes, as well as in a variety of MDR1-expressing intact tumor cells.[1]

References

1. Sharom, F.J., Yu, X., Lu, P., *et al.* Interaction of the P-glycoprotein multidrug transporter (MDR1) with high affinity peptide chemosensitizers in isolated membranes, reconstituted systems, and intact cells. *Biochem. Pharmacol.* **58(4)**, 571-586 (1999).
2. Sharom, F.J., Liu, R., Romsicki, Y., *et al.* Insights into the structure and substrate interactions of the P-glycoprotein multidrug transporter from spectroscopic studies. *Biochim. Biophys. Acta.* **1461(2)**, 327-345 (1999).

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