

Product Information

Antifection inhibitor Vancomycin hydrochloride, Purity ≥98%

Cat. No.: X24-07-ZQ074

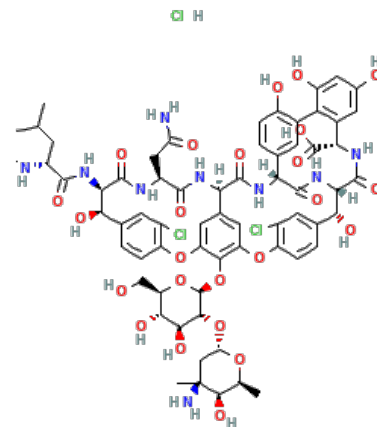
Size: 250 mg; 500 mg

CAS Number: 1404-93-9

Compound CID: 6420023

Synonym: 1404-93-9; Antifection inhibitor

This product is for research use only and is not intended for diagnostic use.



Product Information

Description	Vancomycin hydrochloride, soluble in water and insoluble in DMSO and ethanol, has strong immunosuppressant properties.
Molecular Weight	1485.71
Molecular Formula	C ₆₆ H ₇₆ Cl ₃ N ₉ O ₂₄
Targets	Glycopeptide
IUPAC Name	(1 <i>S</i> ,2 <i>R</i> ,18 <i>R</i> ,19 <i>R</i> ,22 <i>S</i> ,25 <i>R</i> ,28 <i>R</i> ,40 <i>S</i>)-48-[(2 <i>S</i> ,3 <i>R</i> ,4 <i>S</i> ,5 <i>S</i> ,6 <i>R</i>)-3-[(2 <i>S</i> ,4 <i>S</i> ,5 <i>S</i> ,6 <i>S</i>)-4-amino-5-hydroxy-4,6-dimethyloxan-2-yl]oxy-4,5-dihydroxy-6-(hydroxymethyl)oxan-2-yl]oxy-22-(2-amino-2-oxoethyl)-5,15-dichloro-2,18,32,35,37-pentahydroxy-19-[[[(2 <i>R</i>)-4-methyl-2-(methylamino)pentanoyl]amino]-20,23,26,42,44-pentaoxo-7,13-dioxo-21,24,27,41,43-pentazaocacyclo[26.14.2.23.6.214,17.18,12.129,33.010,25.034,39]pentaconta-3,5,8(48),9,11,14,16,29(45),30,32,34(39),35,37,46,49-pentadecaene-40-carboxylic acid;hydrochloride
InChI	InChI=1S/C66H75Cl2N9O24.ClH/c1-23(2)12-34(71-5)58(88)76-49-51(83)26-7-10-38(32(67)14-26)9-7-40-16-28-17-41(55(40)101-65-56(54(86)53(85)42(22-78)99-65)100-44-21-66(4,70)57(87)24(3)96-44)98-39-11-8-27(15-33(39)68)52(84)50-63(93)75-48(64(94)95)31-18-29(79)19-37(81)45(31)30-13-25(6-9-36(30)80)46(60(90)77-50)74-61(91)47(28)73-59(89)35(20-43(69)82)72-62(49)92;/h6-11,13-19,23-24,34-35,42,44,46-54,56-57,65,71,78-81,83-87H,12,20-22,70H2,1-5H3,(H2,69,82)(H,72,92)(H,73,89)(H,74,91)(H,75,93)(H,76,88)(H,77,90)(H,94,95);1H/t24-,34+,35-,42+,44-,46+,47+,48-,49+,50-,51+,52+,53+,54-,56+,57+,65-,66-;/m0./s1
InChI Key	LCTORFDMHMKUSG-XTTLPDOESA-N
Canonical SMILES	CC1C(C(CC(O1)OC2C(C(C(OC2OC3=C4C=C5C=C3OC6=C(C=C(C=C6)C(C(C(=O)NC(C(=O)NC5C(=O)NC7C8=CC(=C(C=C8)O)C9=C(C=C(C=C9)O)C(NC(=O)C(C(C1=CC(=C(O4)C=C1)Cl)O)NC7=O)C(=O)O)CC(=O)N)NC(=O)C(CC(C)C)NC)O)Cl)CO)O)O)(C)N)O.Cl



Isomeric SMILES	<chem>C[C@H]1[C@H]([C@@](C[C@@H](O1)O[C@@H]2[C@H]([C@@H]([C@H](O[C@H]2OC3=C4C=C5C=C3OC6=C(C=C(C=C6)[C@H]([C@H](C(=O)N[C@H](C(=O)N[C@H]5C(=O)N[C@@H]7C8=C(C=C(C=C8)O)C9=C(C=C(C=C9O)O)[C@H](NC(=O)[C@H]([C@@H](C1=CC(=C(O4)C=C1)Cl)O)NC7=O)C(=O)O)CC(=O)N)NC(=O)[C@@H](CC(C)C)NC)O)Cl)CO)O)(C)N)O.Cl</chem>
Form	Lyophilized powder
Purity	≥98%
Solubility	DMSO: Insoluble; Water: 93 mg/mL (62.59 mM); Ethanol: Insoluble
Identity	Confirmed by NMR/HPLC/MS.
Stability	The product is stable for three years when stored at the recommended temperature in lyophilized powder.
Quality Level	Research grade
Applications	Vancomycin hydrochloride is a critical research tool for studying the inhibition of bacterial cell wall synthesis, specifically focusing on resistant strains such as methicillin-resistant <i>Staphylococcus aureus</i> (MRSA).
Storage	Store at -20°C, and keep desiccated.
