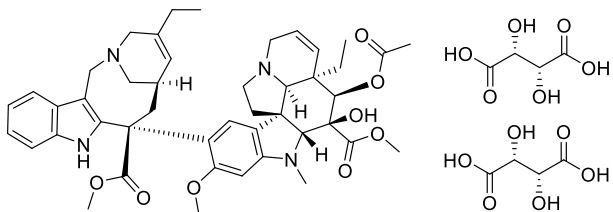


# Certificate of Analysis

MedKoo Cat#:	Product Name:	Lot#:
100930	Vinorelbine tartrate	TZC50930

Chemical name	
methyl (3aR,3a1R,4R,5S,5aR,10bR)-4-acetoxy-3a-ethyl-9-((6R,8S)-4-ethyl-8-(methoxycarbonyl)-1,3,6,7,8,9-hexahydro-2,6-methanoazecino[4,3-b]indol-8-yl)-5-hydroxy-8-methoxy-6-methyl-3a,3a1,4,5,5a,6,11,12-octahydro-1H-indolizino[8,1-cd]carbazole-5-carboxylate bis((2R,3R)-2,3-dihydroxysuccinate)	
Synonyms	
KW2307; KW-2307; KW 2307; 5'-nor-anhydrovinblastin; vinorelbine tartrate; US brand name: Navelbine. Foreign brand names: Biovelbin; Eunades.	
Chemical structure	CAS# and Theoretical analysis
	MedKoo Cat#: 100930 Name: Vinorelbine tartrate CAS#: 125317-39-7 Lot#TZC50930 Chemical Formula: C <sub>53</sub> H <sub>66</sub> N <sub>4</sub> O <sub>20</sub> Molecular Weight: 1079.10 Vinorelbine (freebase) Chemical Formula: C <sub>45</sub> H <sub>54</sub> N <sub>4</sub> O <sub>8</sub> Exact Mass: 778.39416 , Molecular Weight: 778.93

Analysis item	Specifications / Results
Appearance	White solid powder
Structure	<sup>1</sup> H-NMR analysis matches the structure. MS analysis gives the correct molecule weight. Both NMR and MS data are consistent with those reported in the literature.
Purity (HPLC)	>99.0%
Solubility	Soluble in DMSO
Conclusion	This product conforms with MedKoo's quality standards
Shipping condition	Shipped under ambient temperature as non-hazardous chemical. This product is stable for a few weeks during ordinary shipping and time spent in customs.
Storage condition	Short term storage (weeks): 0 – 4 °C under dry condition Long term storage (months): -20 °C under dry condition
Self life	At least 5 years if properly stored.

**CAUTION: NOT FULLY TESTED. FOR RESEARCH ONLY, NOT FOR HUMAN USE**