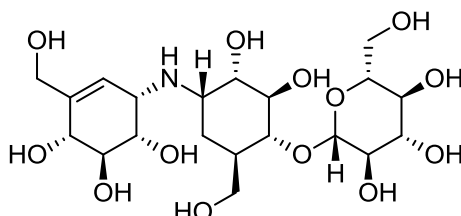


## Validamycin A

Code No.: **BIA-V1561**

Pack sizes: **5 mg, 25 mg**



Synonyms : Antibiotic T 7545A

### Specifications

CAS #	: <b>37248-47-8</b>
Molecular Formula	: <b>C<sub>20</sub>H<sub>35</sub>NO<sub>13</sub></b>
Molecular Weight	: <b>497.5</b>
Source	: <b><i>Streptomyces</i> sp.</b>
Appearance	: <b>White solid</b>
Purity	: <b>&gt;95% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO.</b>

### Application Notes

Validamycin A is the major analogue of a family of cyclitol disaccharides isolated from *Streptomyces hygroscopicus* var. *limoneus* by researchers at Takeda in 1970. Although commonly regarded as an aminoglycoside, validamycin shares little in common with conventional aminoglycosides such as streptomycin and gentamicin. Validamycin A is a potent antifungal agent and is used to control fungi in crop production. Validamycin A acts as a potent inhibitor of trehalase, an important enzyme in carbohydrate storage and utilisation in fungi.

### References

1. Studies on validamycins, new antibiotics. I. *Streptomyces hygroscopicus* var. *limoneus* nov. var. *validamycin*-producing organism. Iwasi T. et al., J. Antibiot. 1970, 23, 595.
2. Molecular basis for trehalase inhibition revealed by the structure of trehalase in complex with potent inhibitors. Gibson R.P. et al., Angew Chem. Int. Ed. Engl. 2007, 46, 4115.