

## PRODUCT DATA SHEET

Code No.: BIA-V1561

Pack sizes: 5 mg, 25 mg

Synonyms : Antibiotic T 7545A

## Specifications

Validamycin A

CAS # : 37248-47-8 Molecular Formula :  $C_{20}H_{35}NO_{13}$  Molecular Weight : 497.5

\_\_\_\_

Source : Streptomyces sp.

Appearance : White solid
Purity : >95% by HPLC

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO.

## **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 ultilisation 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.

Updated: 2 December 2014