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