

## VOGLIBOSE



Voglibose is an Alpha-Glucosidase inhibitor widely used for the treatment of diabetes. Alpha-glucosidase inhibitors are agents that delay the glucose absorption at the intestine level and thereby prevent sudden surge of glucose after meal. Voglibose is the most safe and effective drug of its class.

Since Voglibose has no UV absorption post-column reaction is necessary to produce a fluorescence derivative.

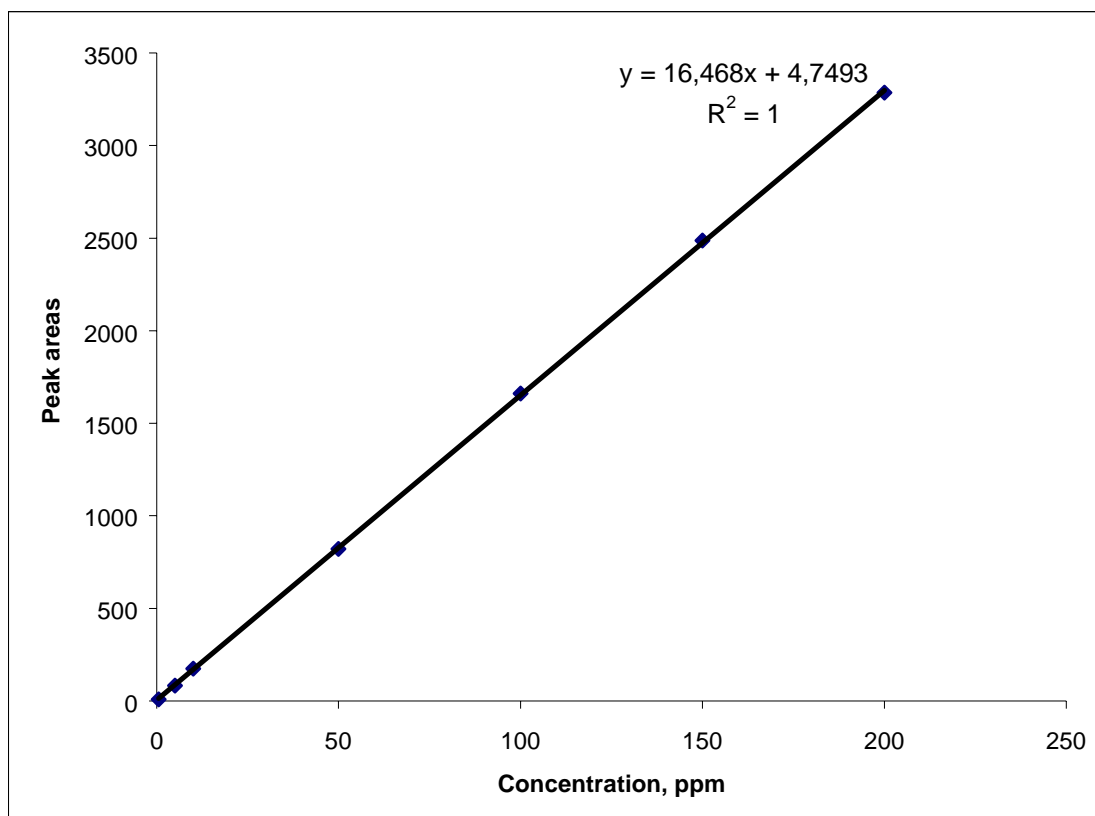
This application note describes a very sensitive and robust analytical method for analysis of Voglibose in pharmaceutical tablets. Simple sample preparation and fast analysis time allow using this method in high throughput environment.

### Method

<b>Analytical Conditions</b>	
Column	Amino column, 4.6x250 mm, P/N 1446250
Temperature	35°C
Flow rate	0.6 mL/min
Mobile Phase	20 mM Sodium phosphate buffer pH 6.5 /Acetonitrile (37%-63%)
Injection volume	50 µL
<b>Sample Preparation</b>	
Crush 5 tablets and mix with 25 mL of mobile phase. Sonicate for 10 min and filter liquid portion through 0.45 µm filter. Put in HPLC injection vial and inject 50 µL	
<b>Post-Column Conditions</b>	
Post Column system	Pinnacle PCX, P/N 1153-1102
Heated Reactor Volume	3.5 mL
Temperature	100 °C
Cooling coil	0.15 mL (at room temperature)

# APPLICATION NOTE

Reagent	6.25 g Taurine, 2.56 g Sodium Periodate in 1000 mL of water
Flow rate	0.6 mL/min
Detection	FLD, Ex=350 nm, Em=430nm

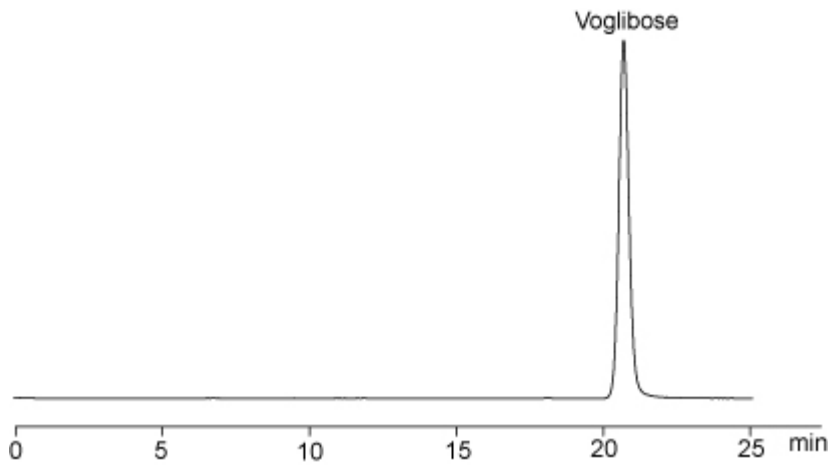


Picture 1. Calibration curve for analytical range 0.5-200 ppm

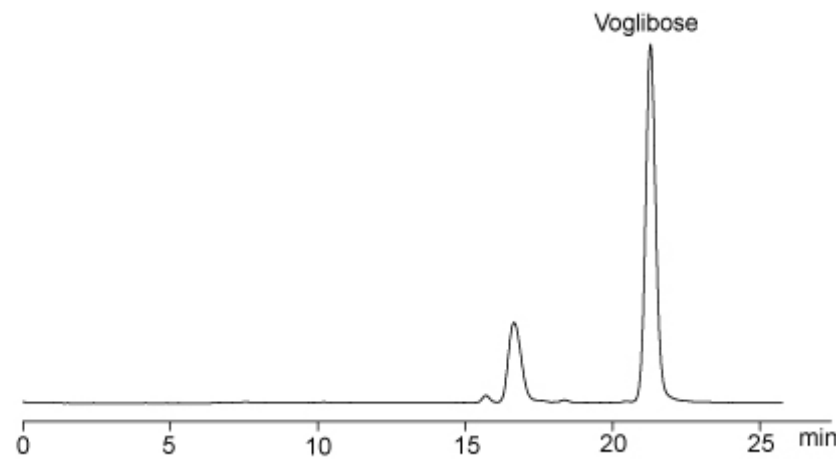
	0.5 ppm	100 ppm
Average RT, min	21.25	21.26
RSD, %, N=6	0.36	0.08
Average Peak area	9.22	1562.69
RSD, %, N=6	1.48	0.79

Table 1. Repeatability studies for different concentration levels

## Chromatograms



Picture 2. Chromatogram of Voglibose standard, 50 ppm, 50  $\mu$ L injection



Picture 3. Chromatogram of Voglibose tablets (Volix<sup>TM</sup>, 0.2 mg), 50  $\mu$ L injection