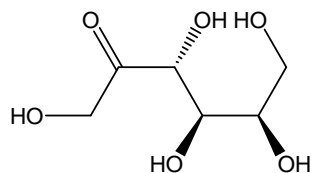


希少糖

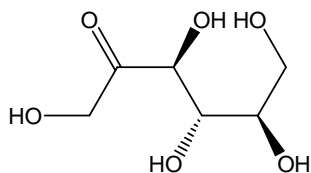
Rare sugars

希少糖は、自然界にその存在量が少ない単糖及びその誘導体と定義され、自然界に 50 種類以上も存在しているといわれています。糖類は UV 吸収がないため、一般的には RI 検出器を用いますが、ここでは、パルス式電気化学検出器 (PAD) と CAPCELL PAK NH₂ UG80 S5 (2.0 mm i.d. x 250 mm) を用いた分析例を示します。

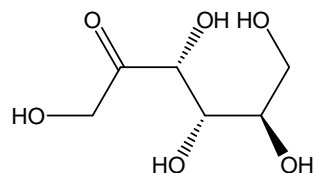
Rare sugars are defined by monosaccharides and their derivatives because of the rare amount, and more than 50 those sugars are known in the natural world. Generally RI detector is used in detection because the sugar is lack of UV absorption. Here instead of, a post-column method was applied by using the combination of Pulsed Amperometric Detector (PAD) and CAPCELL PAK NH₂ UG80 S5 (2.0 mm i.d. x 250 mm).



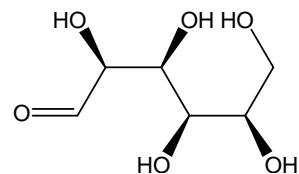
1. プシコース (200 µg/mL)
Psicose (M.W.180.2)



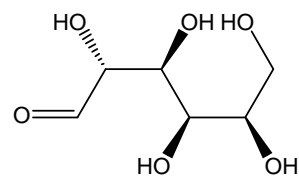
2. タガトース (200 µg/mL)
Tagatose (M.W.180.2)



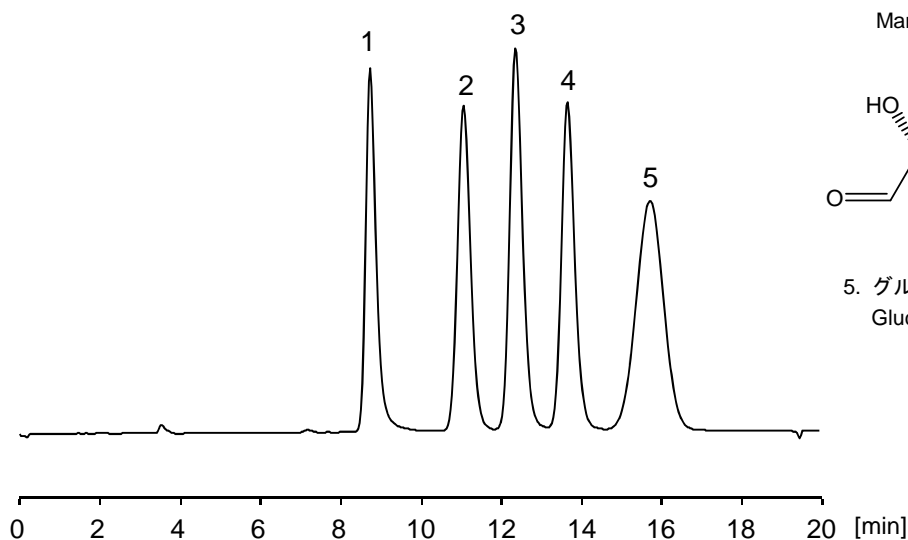
3. ソルボース (200 µg/mL)
Sorbose (M.W.180.2)



4. マンノース (200 µg/mL)
Mannose (M.W.180.2)



5. グルコース (200 µg/mL)
Glucose (M.W.180.2)



【HPLC Conditions】

Column : CAPCELL PAK NH₂ UG80 S5 ; 2.0 mm i.d. x 250 mm
Mobile phase : H₂O / CH₃CN = 15 / 85
Flow rate : 200 μL/min
Reagent : 500 mmol/L LiOH
Flow rate of reagent : 400 μL/min
Temperature : 20 °C
Detection : PAD
Inj. vol. : 2 μL
Sample dissolved in : Each standard was dissolved in H₂O at 2 mg/mL.
An equivolume mixture of all the solutions was diluted with 80 vol% CH₃CN, so that concentration of each compound was 200 μg/mL.
※ 1 μg/mL = 1 ppm