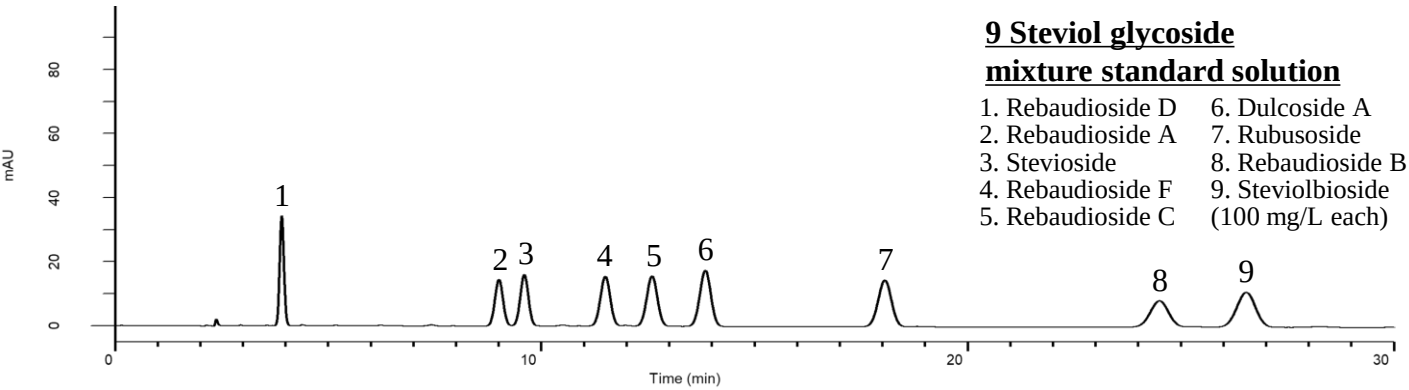
Analysis of Steviol glycosides

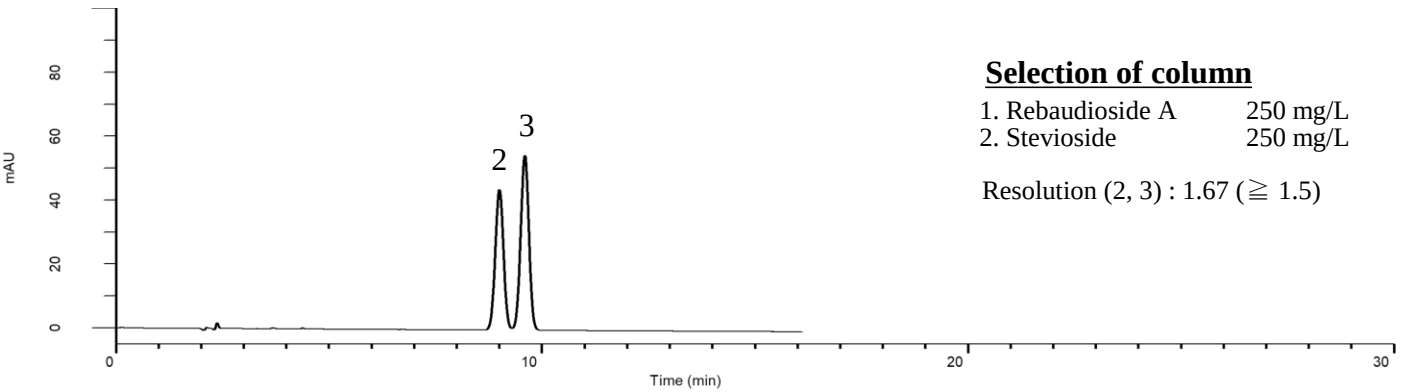
(Under the Condition of the JSFA-IX (Japanese Standards of Food Additives), Steviol Glycosides)



9 Steviol glycoside mixture standard solution

1. Rebaudioside D
2. Rebaudioside A
3. Stevioside
4. Rebaudioside F
5. Rebaudioside C
6. Dulcoside A
7. Rubusoside
8. Rebaudioside B
9. Steviolbioside

(100 mg/L each)



Selection of column

1. Rebaudioside A 250 mg/L
2. Stevioside 250 mg/L

Resolution (2, 3) : 1.67 (≧ 1.5)

Conditions

System : GL7700 HPLC system
Column : InertSustain AQ-C18 (5 μm, 250 x 4.6 mm I.D.)
Column Cat. No. : 5020-89731
Eluent : A) CH_3CN
B) 0.01 M Phosphate buffer in H_2O (pH 2.6)*
A/B = 8/17, v/v
Flow Rate : 1.0 mL/min
Col. Temp. : 40 ℃
Detection : UV 210 nm (UV7751 UV Detector)
Injection Vol. : 10 μL
Sample : Standard

Analyte:

1. Rebaudioside D
2. Rebaudioside A
3. Stevioside
4. Rebaudioside F
5. Rebaudioside C
6. Dulcoside A
7. Rubusoside
8. Rebaudioside B
9. Steviolbioside

*Dissolve 1.56 g of sodium dihydrogenphosphate dihydrate in 1000 mL of water (Solution A).
Dissolve 1.15 g of phosphoric acid in 1000 mL of water (Solution B).
Mix together equal parts of SolutionA and Solution B.