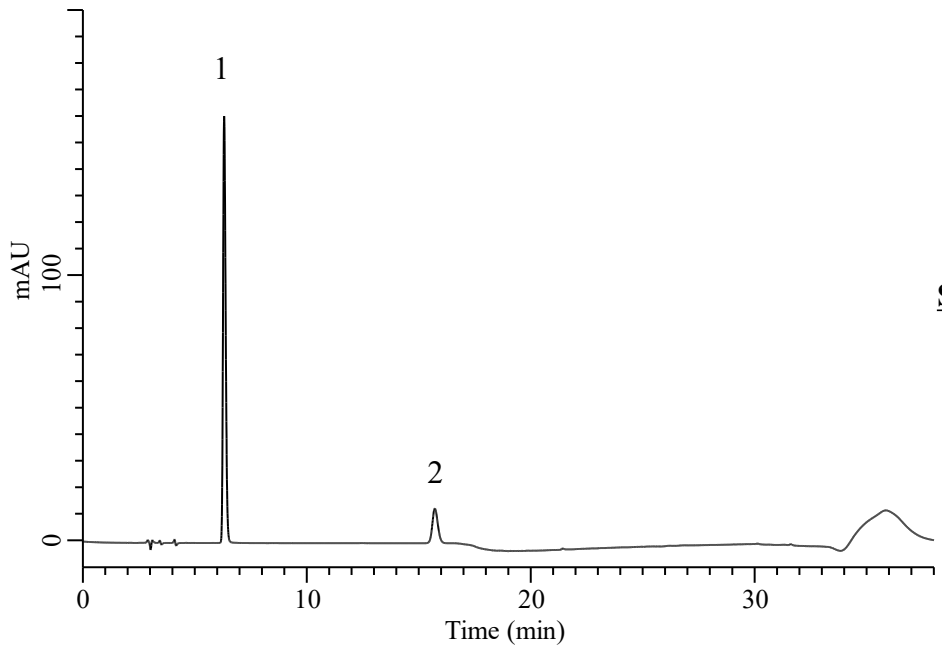
Analysis of Carbidopa and Levodopa

(Under the Condition of draft for USP, Carbidopa, Levodopa, and Entacapone Tablets , Assay, Procedure 1: CARBIDOPA AND LEVODOPA)



Standard solution

Conditions

System : Chromaster PLUS (HITACHI)
Column : InertSustainSwift C18 (GL Sciences Inc.)
(5 µm, 250 x 4.6 mm I.D.)
Column Cat. No. : 5020-88027
Eluent : A) CH_3CN/CH_3OH=50/50, v/v
B) Buffer*

Time (min)	A (vol %)	B (vol %)
0.0	3	97
12.0	3	97
26.0	70	30
29.0	70	30
31.0	3	97
38.0	3	97

Flow Rate : 1.0 mL/min
Col. Temp. : 30 °C
Detection : UV 280 nm (Chromaster 5430 DAD)
Injection Vol. : 10 µL
Sample : Standard in 0.1N HCl

Analyte:

1.	Levodopa	0.16 mg/mL
2.	Carbidopa	0.04 mg/mL

Relative retention times
Levodopa : 0.4
Carbidopa : 1.0

Tailing factor
the peak of 1 : (0.8 ≦) 1.29 (≦ 1.8)
the peak of 2 : (0.8 ≦) 1.15 (≦ 1.8)

RSD of
the peak area of 1 (%)(n=6) : 0.30 (≦ 1.0)
the peak area of 2 (%)(n=6) : 0.32 (≦ 1.0)

* : Dissolve 1.8 g of sodium phosphate, monobasic, anhydrous in 900 mL of water. Add 2 mL of phosphoric acid, and dilute with water to 1000 mL.