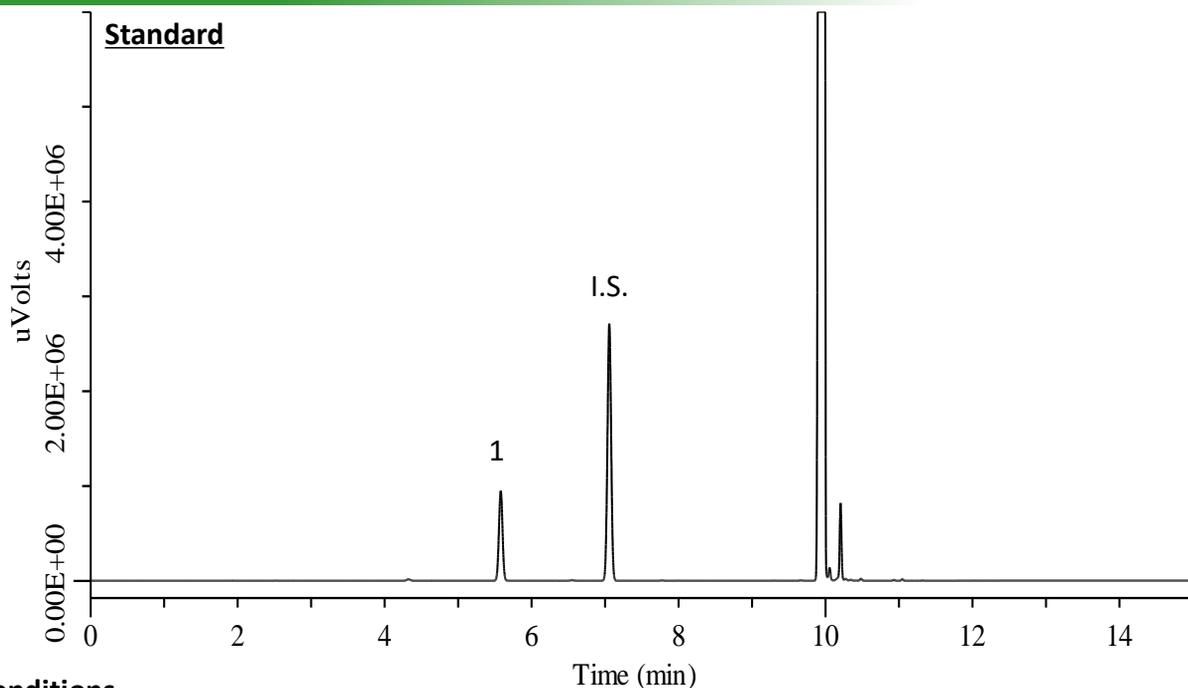


# Quantitative Test for Hydroxypropylcellulose with Reference to the Japanese Pharmacopoeia, 17th Edition

The test for hydroxypropyl cellulose was harmonized in the three pharmacopoeias of Japan, Europe and the United States. Based on the revision in the Japanese Pharmacopoeia 17th edition (JP17) the assay method was revised and changed from a conventional packed column-TCD test to a capillary column-FID test.

This application reports analysis using an InertCap 1 non-polar capillary column in accordance with Japanese Pharmacopoeia, 17<sup>th</sup> Edition with excellent results.

## Assay



### Conditions

**System** : GC - FID  
**Column** : InertCap 1  
 0.53 mm I.D. x 30 m df = 3.0  $\mu$ m  
**Col. Cat. No.** : 1010-11448  
**Col. Temp.** : 40 °C(3 min) - 10 °C/min - 100 °C  
 -50 °C/min - 250 °C (3 min)  
**Carrier Gas** : He 7.82 mL/min Constant Flow  
**Injection** : Split 1:50  
 180 °C  
**Injection Vol.** : 2  $\mu$ L  
**Detection** : FID Auto Range  
 280 °C  
**Sample** : Standard solution

### Analyte

1. Isopropyl iodide  
 I.S. Methylcyclohexane  
 Resolution (1, I.S.) : 15.95 ( $\geq 2.0$ )  
 Relative retention time (1 to I.S.) : 0.79 (about 0.8)  
 RSD of the response factor  
 Calculation (F)(%) ( $n=6$ ) : 0.29 ( $\leq 2.0$ )

\* ( ) The conditions specified in the JP are as follows:

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