

Analysis of Impurities of Omeprazole with Agilent InfinityLab Poroshell HPH-C8 Columns

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Introduction

A method for the analysis of impurities of omeprazole was run on a superficially porous 2.7 μm Agilent InfinityLab Poroshell HPH-C8 column, according to the China Pharmacopeia (ChP) impurities analysis in omeprazole. The InfinityLab Poroshell HPH chemistry has been designed to be stable in basic mobile phases up to pH 11.0. InfinityLab Poroshell HPH-C8 and InfinityLab Poroshell HPH-C18 have become popular column choices for applications at mid to high pH.

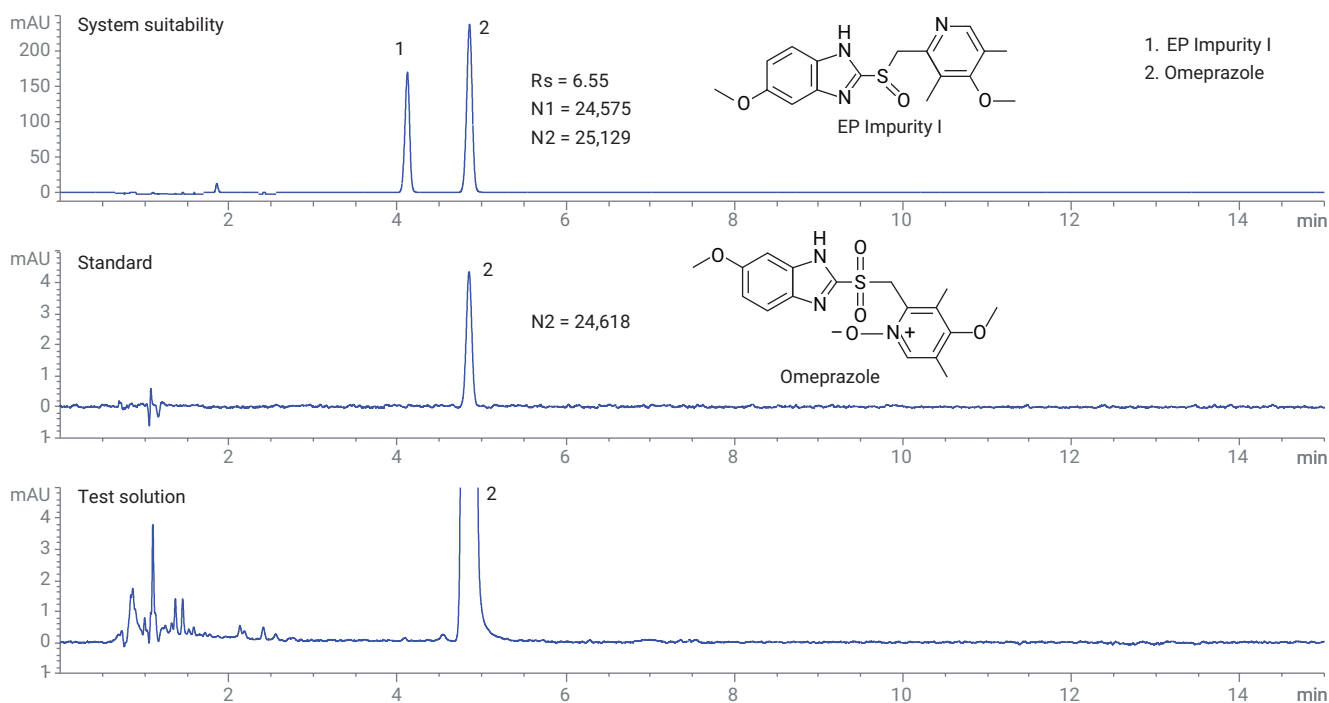


Figure 1. Impurities analysis in omeprazole with an Agilent InfinityLab Poroshell HPH-C8 column.

Table 1. Conditions used for the HPLC method.

Parameter	Value
Instrument	Agilent 1290 Infinity II high speed pump (G7120A) Agilent 1290 Infinity II multisampler (G7167B) Agilent 1290 Infinity II multicolumn thermostat (G7116B) Agilent 1290 Infinity II DAD (G7117B) Agilent OpenLab CDS, version C.01.08
Column	Agilent InfinityLab Poroshell HPH-C8, 4.6 × 100 mm, 2.7 μm (p/n 695975-706)
Mobile Phase	75% 0.01 M Na ₂ HPO ₄ , pH 7.6 adjusted with phosphoric acid/25% acetonitrile
Flow Rate	1 mL/min
UV Detector	280 nm, 40 Hz
Column Compartment Temperature	35 °C
Injection Volume	8 μL
Sample	System suitability: 0.1 mg/mL impurity I and 0.1 mg/mL omeprazole in mobile phase Standard solution: 2 μg/mL in mobile phase Test solution: 0.2 mg/mL in mobile phase

Conclusion

The main impurity (I) was well separated from omeprazole, and all the system requirements were met by this method.

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This information is subject to change without notice.