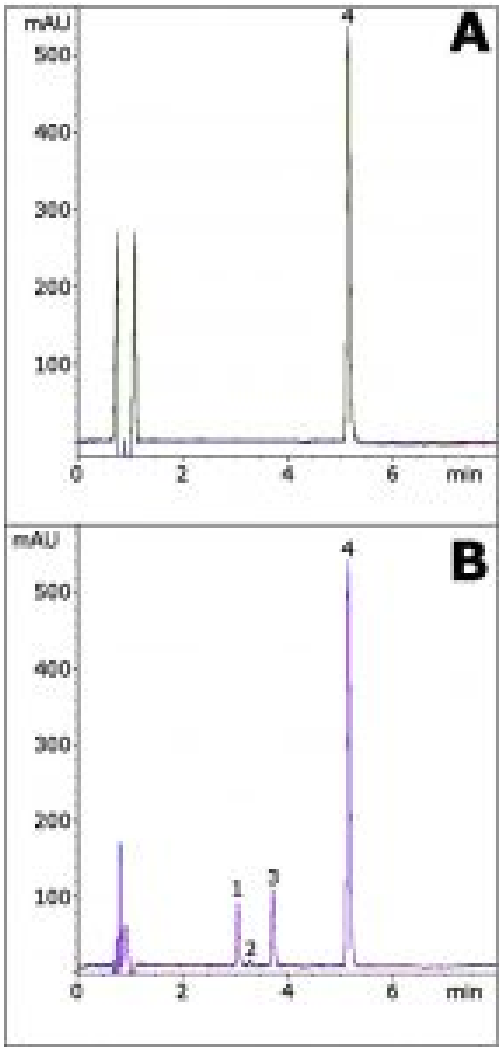
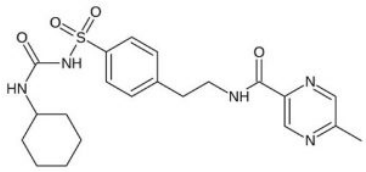
Glipizide Analyzed with HPLC – AppNote

Separation of API from Acid Degradation Products

This Method illustrates the capabilities to separate several Glipizide Degradants that are formed under acidic conditions. Good separation is obtained as well as Sharp, Symmetric Peak shapes for each compound.

The Retention times show good repeatability as well, as demonstrated in the Figure overlays. Also, the Mobile Phase Solvents are LCMS compatible, which expands the potential applications of the Method. Finally, Gradient Equilibration is fast and requires only 1 Column volume.





Peaks:

1. Degradant
2. Degradant
3. Degradant
4. Glipizide

Method Conditions

Column: Cogent Bidentate C18™, 4µm, 100Å

Catalog No.: 40018-75P

Dimensions: 4.6 x 75mm

Mobile Phase:

A: DI Water / 0.1% Formic Acid

B: Acetonitrile / 0.1% Formic Acid

Injection vol.: 10µL

Flow rate: 1mL / minute

Detection: UV @ 225nm

Sample Preparation:

Figure. A (Non-Degraded): 0.1mg / mL Glipizide in Methanol diluent.

Figure. B (Acid Degradation): 0.1mg / mL Glipizide in 50:50 Methanol /1N HCl diluent. Sample was heated at 85°C for 1 hour.

t_0: 0.9 minutes

Note: *Glipizide is an anti-diabetic sulfonylurea drug, sold under the trade name Glucotrol®.*

Attachment

No 165 Forced Degradation of Glipizide with HPLC pdf 0.3 Mb Download File

MicroSolv Technology Corporation
9158 Industrial Blvd. NE, Leland, NC 28451
tel. (732) 380-8900, fax (910) 769-9435
Email: customers@mtc-usa.com
Website: www.mtc-usa.com
Date: 09-19-2024