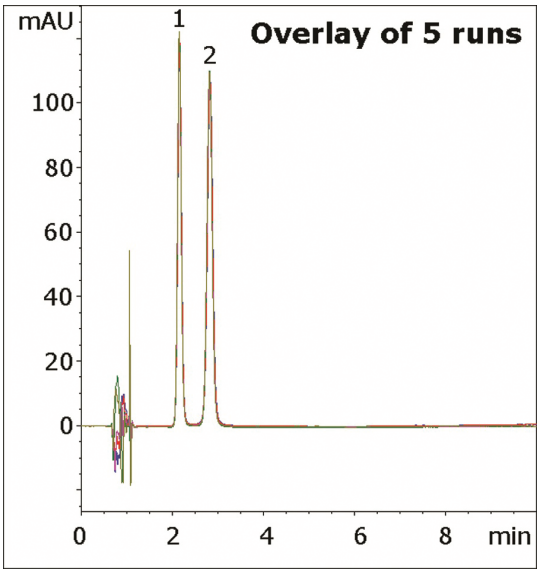
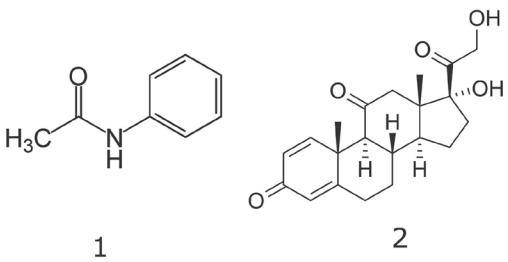
# Prednisone

## Isocratic method for tablet formulation




1 2

**Note:** Prednisone is used to treat symptoms due to low corticosteroid levels. This encompasses a wide variety of applications such as for arthritis, severe allergic reactions, multiple sclerosis, and lupus. It is marketed under a variety of trade names, such as Deltasone®, Meticorten®, and Orasone®.

### Method Conditions

**Column:** **Cogent Bidentate C8™**, 4µm, 100Å

**Catalog No.:** 40008-75P

**Dimensions:** 4.6 x 75 mm

**Mobile Phase:** 68.8% DI $H_2O$ / 25.0% tetrahydrofuran / 6.2% methanol (v/v)

**Injection vol.:** 10µL

**Flow rate:** 1.0 mL/min

**Detection:** UV 254 nm

**Samples:** 10mg strength prednisone tablet was ground and added to a 25 mL vol flask. It was diluted to mark with methanol and sonicated 10 min. It was then filtered with a 0.45µm nylon syringe filter. 110µL of the filtrate and 90µL of a 0.1 mg/mL acetanilide solution were combined and diluted with 800µL methanol. Peaks were confirmed by individual standards.

**Peaks:** 1. Acetanilide (Internal Standard)
2. Prednisone (API)

**$t_0$:** 0.8 min

### Discussion

This method shows how the Cogent Bidentate C8 column can be used with the mobile phase specified in the USP method for assay of prednisone tablets. The resolution between the API and the acetanilide internal standard meets the system suitability for this analysis. Resolution was found to be superior compared to type B silica based C18 columns. In addition, the column produces excellent precision under these conditions, as shown in the figure overlay.



MANUFACTURED BY:
MICROSOLV TECHNOLOGY CORPORATION
9158 Industrial Blvd NE
Leland, NC 28451
p: 1.732.380.8900
f: 1.910.769.9435
customers@mtc-usa.com
www.Cogent-HPLC.com