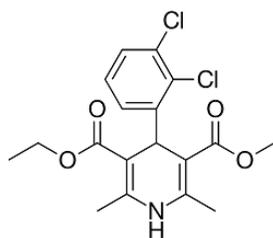
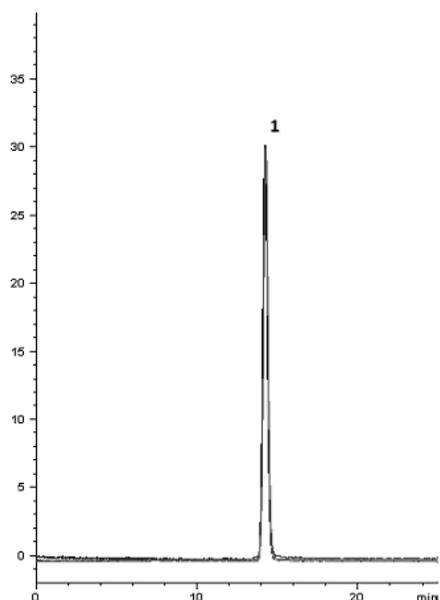


# Felodipine

## Extended-Release Tablets USP Assay



Felodipine



**Notes:** Felodipine is a calcium channel blocker and acts primarily on vascular smooth muscle cells by stabilizing voltage-gated L-type calcium channels in their inactive conformation. Felodipine prevents myocyte contraction by binding to calcium-binding proteins, which exhibits competitive antagonism of the mineralocorticoid receptor. This event results into inhibiting the activity of calmodulin-dependent cyclic nucleotide phosphodiesterase and blocking calcium influx through voltage-gated T-type calcium channels. This reduces movement of calcium into the cells of the heart and blood vessels and increases supply of blood and oxygen to the heart.

### Method Conditions

**Column:** Cogent RP C18™, 5µm, 100Å

**Catalog No.:** 68518-15P

**Dimensions:** 4.6 x 150 mm

**Buffer:** 6.9 mg/mL of monobasic sodium phosphate in water. Adjust with 1 M phosphoric acid to a pH of 3.0 ± 0.05

**Mobile Phase:** Acetonitrile, methanol, and Buffer (40:20:40)

**Injection vol.:** 40µL

**Flow rate:** 1.0 mL/min

**Detection:** 362 nm

**Standard solution:** 0.02 mg/mL of USP Felodipine in Mobile phase

**Peak:** 1. Felodipine

### Discussion

This method demonstrates the USP Felodipine Extended-Release Tablet assay in the Cogent RP C18. As shown in the chromatogram with a five injection overlay, the peak efficiency is superb and USP peak tailing guidelines are easily met with the Cogent RP C18™ column. This demonstrates a great alternative column for easy plug and play methods. The Cogent C18 is end-capped and has excellent reproducibility and robustness.

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