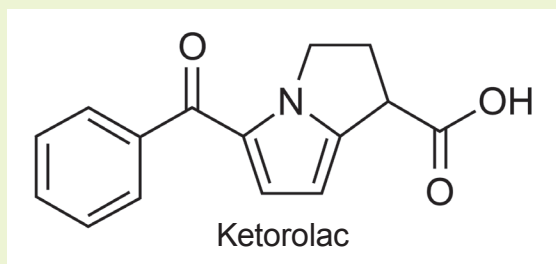
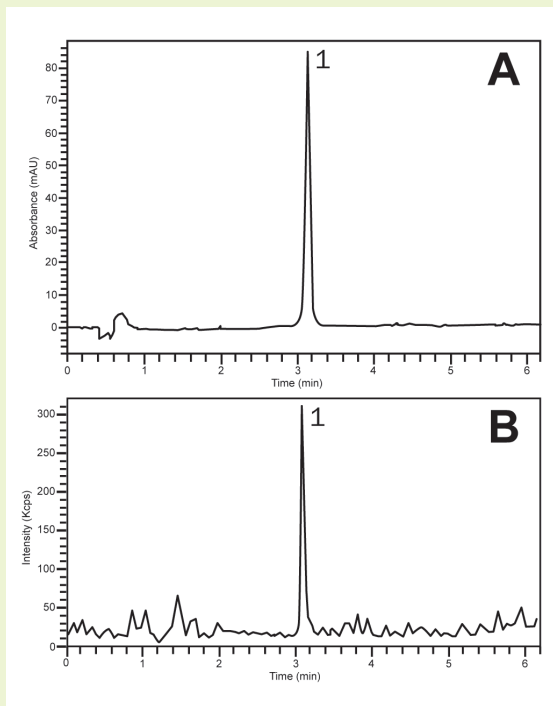


Ketorolac

Analgesic agent



Note: Ketorolac is a non-steroidal anti-inflammatory drug (NSAID), indicated for treatment of moderate to severe pain, which functions by inhibiting synthesis of prostaglandins.

Method Conditions

Column: Cogent Phenyl Hydride™, 4µm, 100Å

Catalog No.: 69020-10P-2

Dimensions: 2.1 x 100 mm

Solvents: A: DI H₂O / 0.1% formic acid (v/v)
B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:	time (min.)	%B
	0	20
	5	80
	10	80
	11	20

Injection vol.: 1µL

Flow rate: 0.5 mL/min

Detection: Fig. A: UV 320 nm

Fig. B: ESI-POS-256.2 m/z [M+H]⁺

Sample: Ground ketorolac tablet was extracted with DI H₂O (1 mg/mL powder concentration) and gravity filtered. Then it was filtered through a 0.45µm syringe filter for HPLC analysis.

Peaks: 1. Ketorolac

Discussion

There is a need for analysis of the active ingredient in ketorolac tablet formulations in order to evaluate two different extraction protocols. The use of ethanol as the extraction solvent was explored initially but DI H₂O was observed to produce superior extraction efficiency. The chromatograms show how the compound can be retained and detected using either UV-based detection (Fig. A) or mass spectrometry (Fig. B). The conditions may be applied to the routine assay analyses of ketorolac tablet formulations.