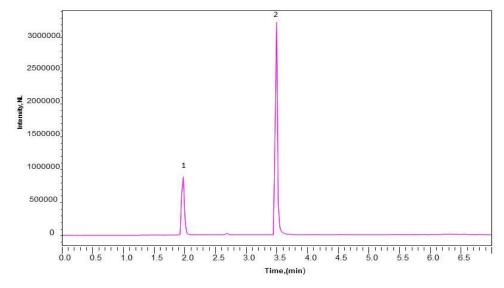


UHPLC/MS Analysis of Kratom and its Metabolite on Ascentis® Express C18, 2 µm



Peak Number	Compound	Concentration µg/mL
1	7-OH Mitragynine	5
2	Mitragynine	5

Conditions:

column: Ascentis® Express C18, 5 cm x 2.1 mm I.D., 2 μm

mobile phase: [A] Water (0.1% (v/v) Formic Acid); [B] Acetonitrile (0.1% (v/v) Formic Acid)

gradient: 10% B to 95% B in 4 min; hold at 95% for 1 min.; 95% B to 10% B in 0.1 min; hold at 10% B

for 2 min

flow rate: 0.4 mL/min

column temp.: 25 °C

detector: MSD, ESI-(+)

injection: 2 μL

sample: Kratom compounds, varied concentration, 95:5 Acetonitrile: Water

Description:

The 2 µm Ascentis® Express C18 is ideal for separating kratom and its metabolite. Kratom is an unregulated herbal extract that is used to alleviate symptoms of opioid withdrawal. It is found in the leaves of the evergreen tree *Mitragyna speciosa* in Southeast Asia. It is believed to act on opioid receptors, though studies on its benefits remain unclear and have given rise to safety concerns about its use. Kratom has also been used in various ways in traditional medicine in Southeast Asia, from increasing energy and appetite to treating pain and intestinal infections.

Materials:

Product Part Number	Description	
50811-U	Ascentis® Express C18, 5 cm x 2.1 mm I.D., 2 μm	
900682	Water	
5.33002	Formic Acid	
900667	Acetonitrile	
H-099	7-OH Mitragynine, 100 µg/mL, methanol	
M-152	Mitragynine, 100 μg/mL, methanol	

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.



