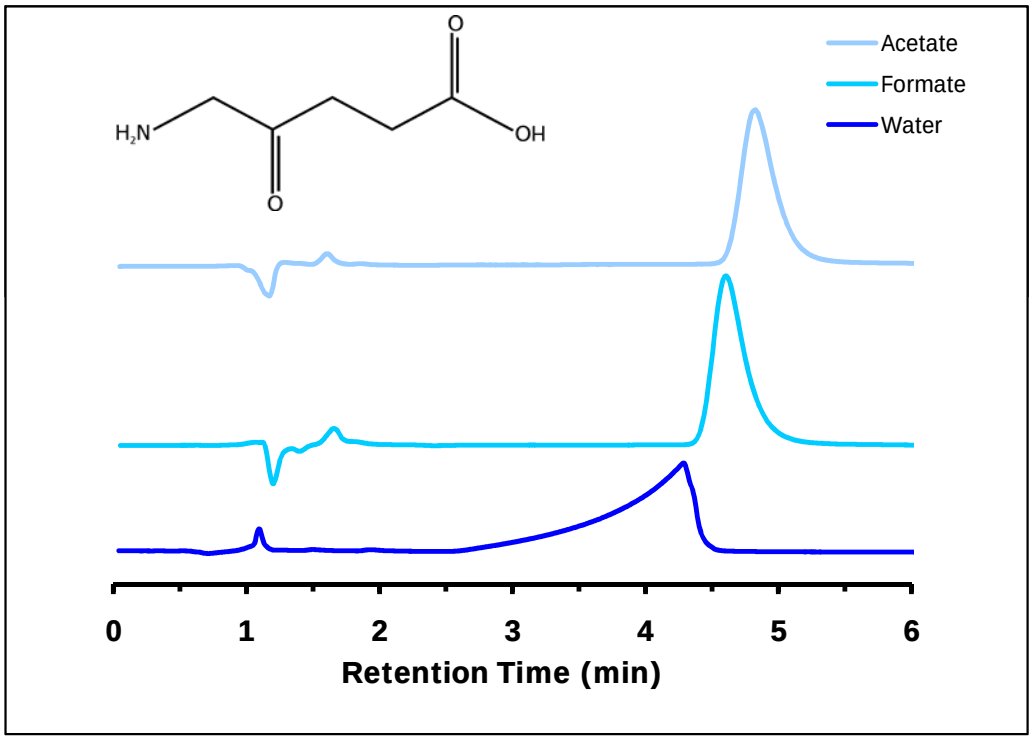
ZIC®-HILIC Separation of Aminolevulinic Acid

Chromatographic Conditions

Column:	ZIC®-HILIC, PEEK 50 x 4.6 mm, 5 µm, 200 Å (P/N 150451)
Injection:	5 µL in mobile phase
Detection:	UV @ 254 nm (UFS 1.0 V)
Pressure Drop:	4.6 MPa (662 psi)
Flow Rate:	0.5 mL/min
Temperature:	Ambient
Mobile Phase (v/v):	70%, Acetonitrile
	30%, Ammonium Acetate 5 mM
	(total ionic strength = 1.5 mM)



Chromatographic Data

No.	Compound	Time (min)	Retention factor
	t_0 void volume	1.0	-
1	Aminolevulinic acid	4.3	3.3
	Aminolevulinic acid	4.6	3.6
	Aminolevulinic acid	4.8	3.8

Salt influence on peak shape for a zwitterionic analyte.

Without salt in the sample mixture, the analyte show peak fronting.

Addition of a salt with good solubility (formate or acetate) to match the ionic strength of mobile phase, alleviate it

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