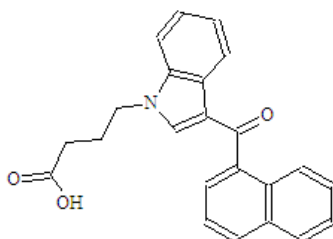


Spice, K2 analysis on LDTD-MS/MS Evaluation

Standard

” Standards

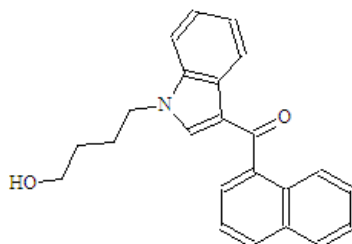
JWH-073-COOH



Formula

Molecular Formula: C₂₃H₁₉NO₃
Molecular Weight: 357.43

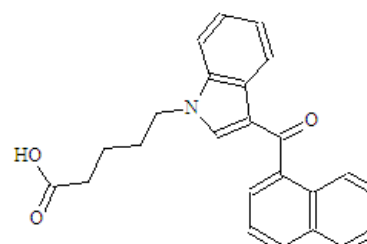
JWH-073-OH



Formula

Molecular Formula: C₂₃H₂₁NO₂
Molecular Weight: 343.45

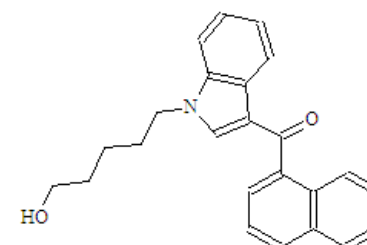
JWH-018-COOH



Formula

Molecular Formula: C₂₄H₂₁NO₃
Molecular Weight: 371.46

JWH-018-OH



Formula

Molecular Formula: C₂₄H₂₃NO₂
Molecular Weight: 357.48

Sample Preparation / Instrumentation

“ Extraction procedure :

- . 20 μ L sample (urine)
- . 60 μ L Acetonitrile
- . 20 μ L NaCl (saturate in water)
 - “ Vortex and centrifuge
- . Spot: 2 μ L of upper phase

“ Thermo Vantage coupled to a LDTD model T-960



LDTD-MS/MS Method

Ionization mode: Negative

Compound	MW	Q1	Q3	Collision Energy (CE)
JWH-073-COOH*	357.48	356	270	24
JWH-018-COOH*	371.46	370	270	26

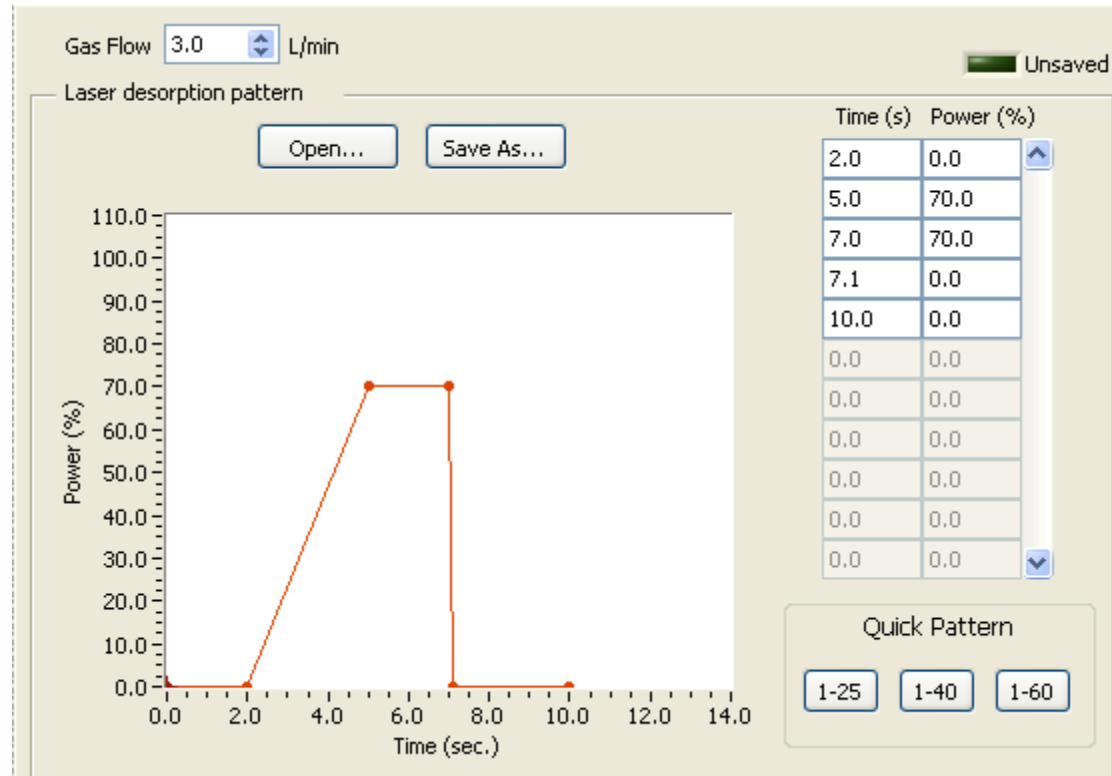
Ionization mode: Positive

Compound	MW	Q1	Q3	Collision Energy (CE)
JWH-073-OH	343.45	344	155	19
JWH-018-OH**	357.43	358	155	20

*Also detected in positive mode

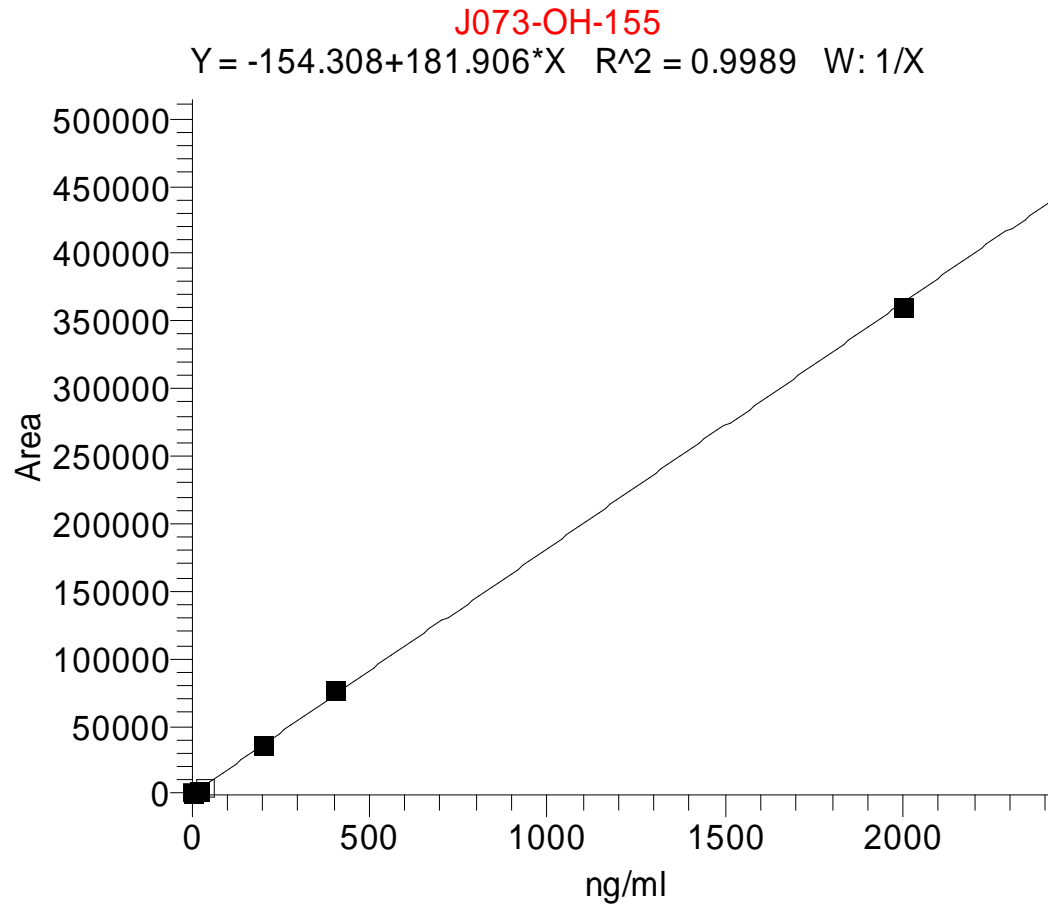
** JWH-073-COOH interferes with JWH-018-OH in positive(+)APCI but it not in negative(-)APCI.

LDTD-MS/MS Method



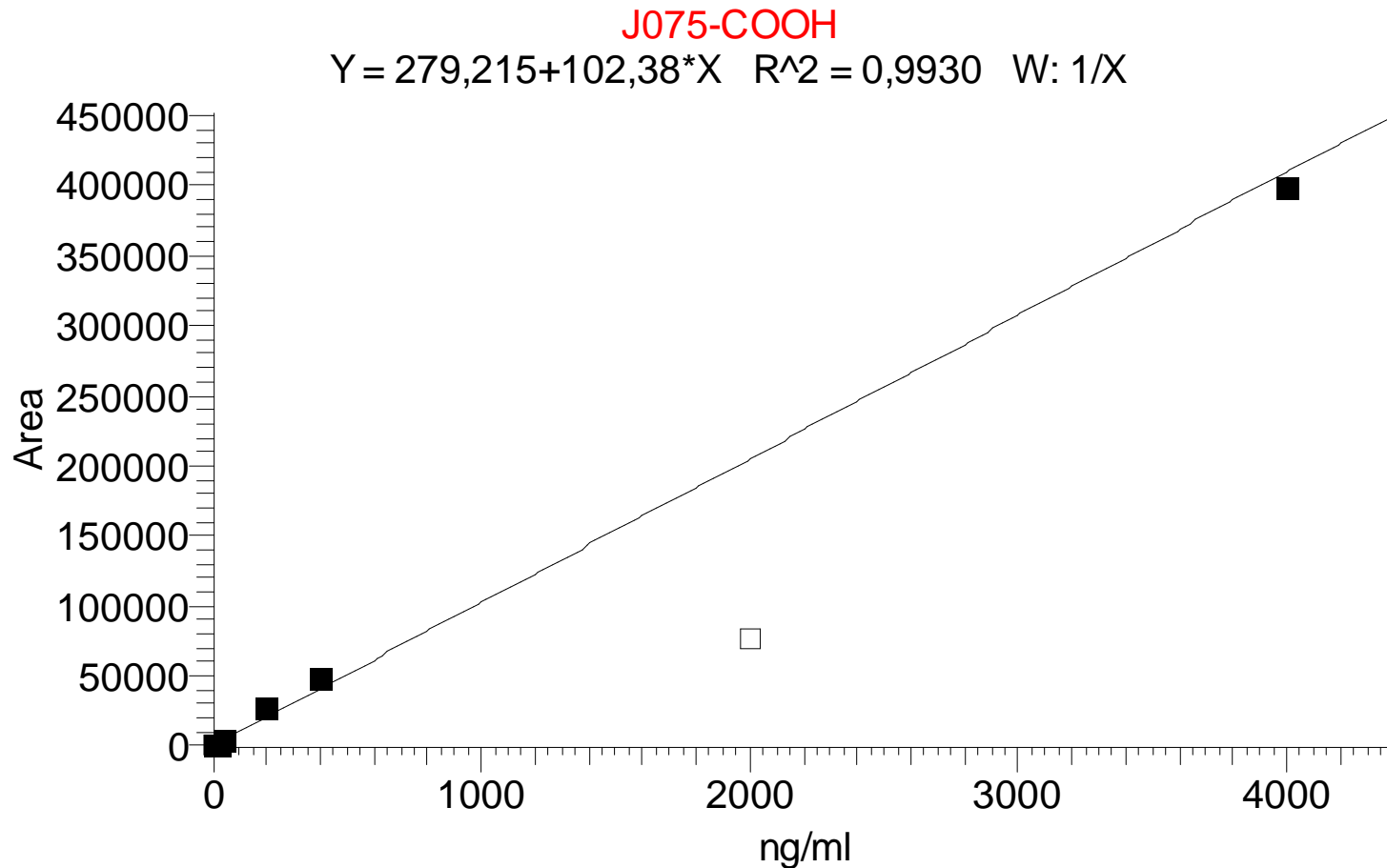
Results – JWH-073-OH

“Linear between 2 to 2000 ng/ml (no IS)



Results – JWH-073-COOH

“Linear between 4 to 2000 ng/ml (no IS)

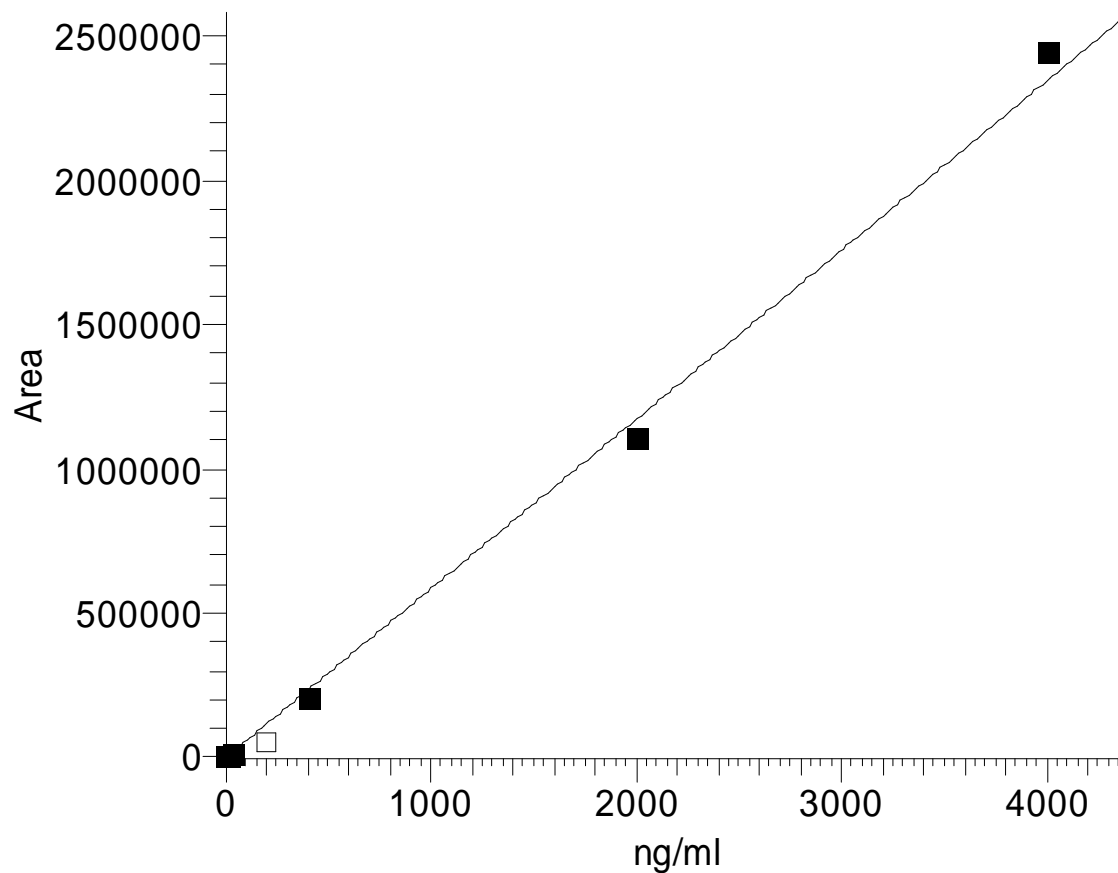


Results – JWH-018-OH

“Linear between 2 to 4000 ng/ml (no IS)

J018-OH-155

$$Y = -1713.74 + 586.16 * X \quad R^2 = 0.9955 \quad W: 1/X$$

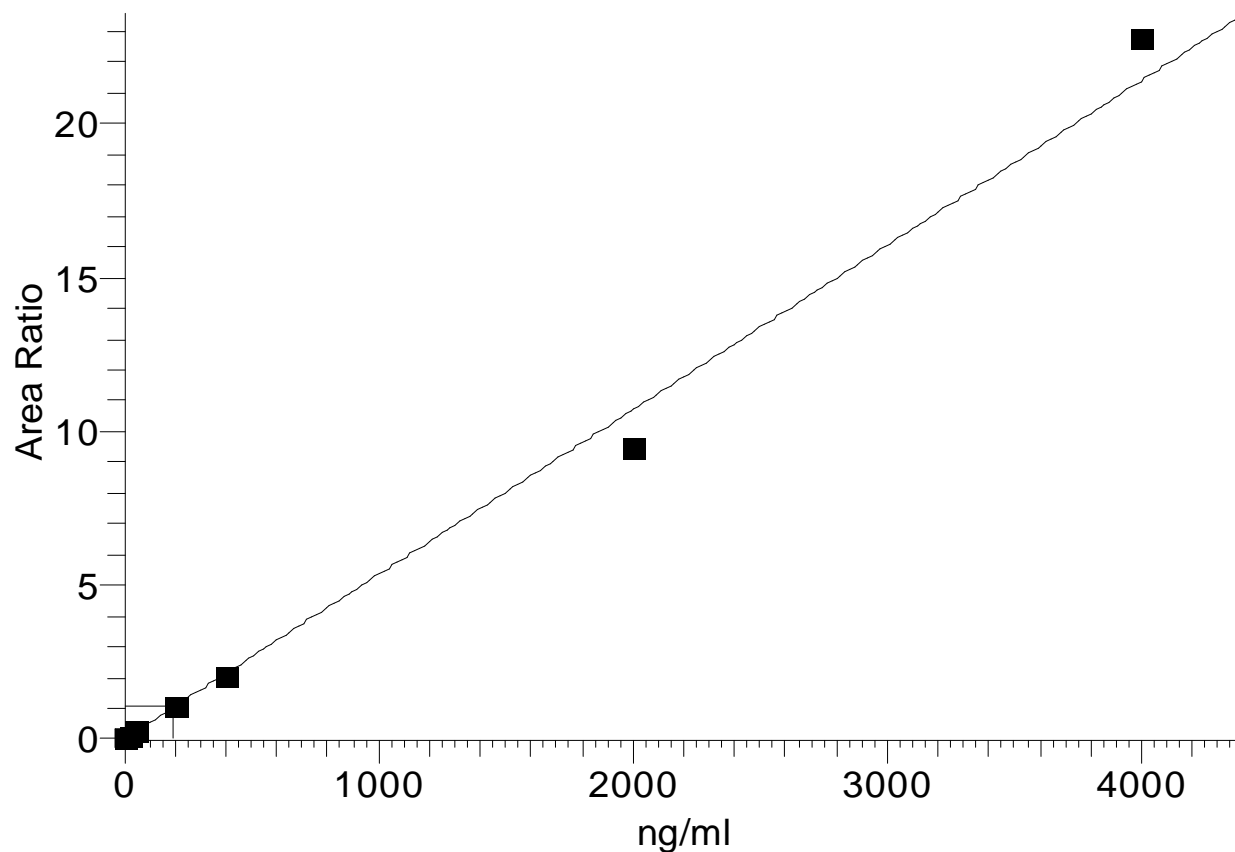


Results – JWH-018-COOH

“Linear between 2 to 4000 ng/ml (no IS)

J018-COOH

$$Y = 0.0025567 + 0.00535386 * X \quad R^2 = 0.9932 \quad W: 1/X$$



Under Development

“ Other sample preparation techniques are under study to lower the limits of detection.

“ AB TripleTof-5600 will be evaluated as a screening tool combined with the LDTD.