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### OSTRO SAMPLE PREPARATION PRODUCTS: CROSSTALK

### INTRODUCTION

One measure of a microplate's performance is the amount of crosstalk, or cross-contamination, that occurs between adjacent wells. The influence of adjacent samples upon each other may cause errors in analyte quantitation which may effect the evaluation of a plate's performance. This potential influence on the final results should be evaluated and taken into account if necessary. As part of the evaluation of the Ostro<sup>™</sup> plate, specific experiments were conducted in order to ensure that detrimental crosstalk effects were not observed.

#### EXPERIMENTAL

#### Samples

- Fortified plasma labeled "o": ketoprofen
  - 20 mg/mL: final concentration
- Blank plasma labeled "x"
- Standard sample solution: 1 μg/mL
  - 1 μg/mL: 0.005% of fortified plasma concentration
- Sample positions:

#### 96-Well Plate Diagram

	1	2	3	4	5	6	7	8	9	10	11	12
A	0	х	0	х	0	х	0	х	0	х	0	х
В	х	0	х	0	х	0	х	0	х	0	х	0
с	0	х	0	х	0	х	0	х	0	х	0	х
D	х	0	х	0	х	0	х	0	х	0	х	0
E	0	х	0	х	0	х	0	х	0	х	0	х
F	х	0	х	0	х	0	х	0	х	0	х	0
G	0	х	0	х	0	х	0	х	0	х	0	х
н	х	0	х	0	х	0	х	0	х	0	х	0

#### Protocol

- Load 200 µL fortified plasma into "o" wells.
- Load 200 µL blank plasma into "x" wells.
- Vigorously add 600 μL 1% FA in ACN to all the wells.
- Aspirate samples 3X using an autopipette set to 600 μL.
- Using a 2 mL sample collection plate, apply 15-20" Hg vacuum for 5 minutes.
- Evaporate the whole plate under 50 °C with N<sub>2</sub> flow until all the wells are dry.
- Reconstitute all "x" wells with 200 µL 80% (v/v) MeOH.
- Cover plate with cap mat.
- Inject and analyze all "x" well samples and compare to standard at 1 µg/mL. The levels in the "x" wells should be <1 µg/mL (<0.005% of the fortified plasma).</li>
- Detection wavelength: PDA at 250-260 nm.

## RESULTS

#### Crosstalk Ketoprofen Area Count Results

Plate	Solvent Blank Injection Area	n = 48 Blank Plasma "x" Wells Average Area	n = 8 1µg/mL Standard Average Area		
1	41	41.7	2277		
2	41	140	1668		

In both plates, the average area counts for the blank plasma "x" wells were at least an order of magnitude lower than the standard which represents 0.005% of the fortified plasma, indicating zero to negligible cross-talk.

## CONCLUSION

Based on these data, there is no significant cross-talk observed when using the Ostro plate.

## TECHNICAL NOTE

# Sales Offices

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