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Busulfan & Methotrexate in Serum/Plasma LC-MS/MS Analysis Kit

The efficacy and toxicity of anticancer drugs are related to parent drug and/or metabolite concentrations in body fluids and tissues. Therefore, monitoring of anticancer drugs in biological fluids and tissues is important during both pre-clinical and clinical development and often in routine clinical use.

Highlights of the Analysis Kit

- Simultaneously quantification of busulfan and methotrexate
- Total run time 5 min.
- Just a few pipetting steps for the sample treatment-**protein precipitate and shoot approach**-no need for derivatization
- Consuming small volume of patient's sample
- Long life span of HPLC column

Parameters

Busulfan, Methotrexate.

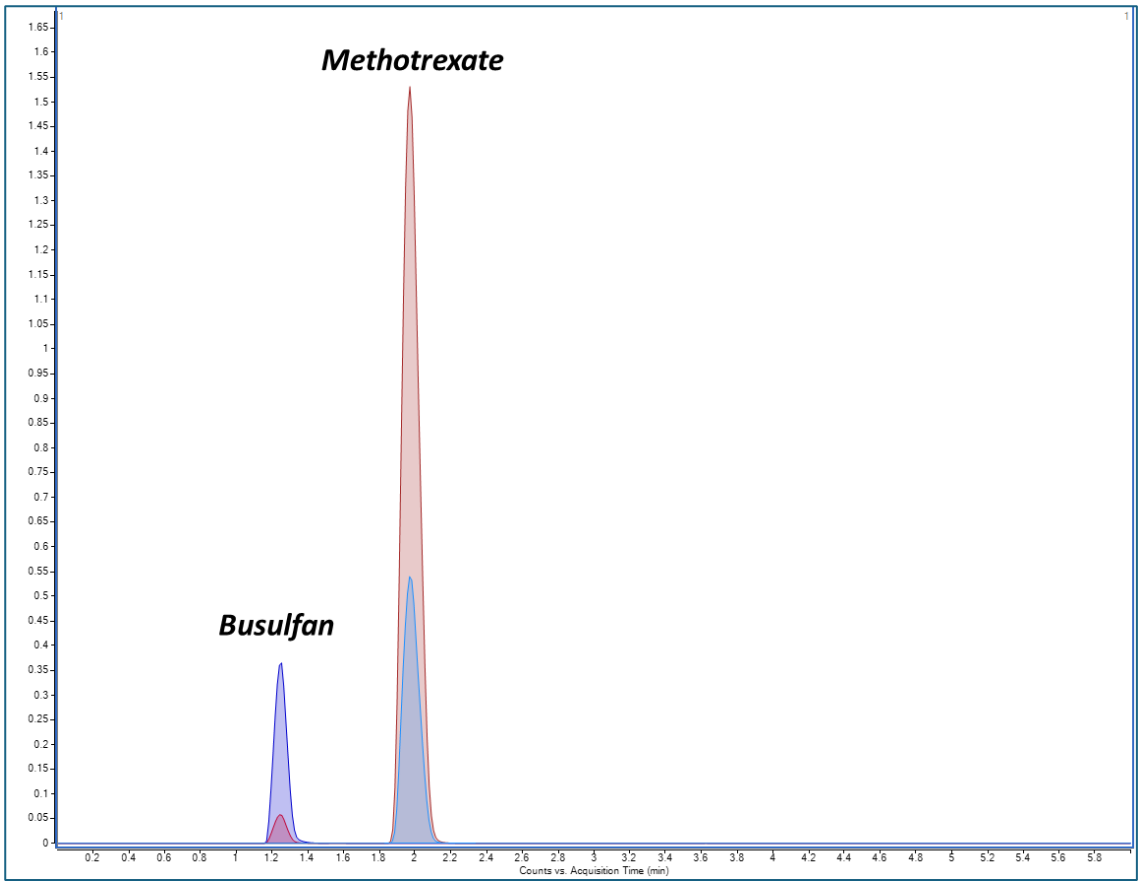
Sample Type

Serum/Plasma

Sample Preparation

1	Pipette 100 µl serum sample/calibrators into a microcentrifuge tube
2	Add 50 µL of IS solution, vortex for 5 sec.
3	Add 650 µl Reagent-1 to the sample and vortex 30 sec.
4	Centrifuge 3000 rpm for 5 min. and decant the supernatant into a HPLC vial

Example Chromatogram



Total ion chromatogram of the analysis

Method Performance

All results were obtained using Agilent 6470 TQ system

Analytes	LOQ (ng/ml)	Linearity (ng/ml)	Accuracy		Repeatability	
			LLQC* (%)	HLQC** (%)	LLQC (%CV)	HLQC (%CV)
Busulfan	4.00	10.0 – 1000.0	94	96	6.10	1.30
Methotrexate	1.16	10.0 – 1000.0	99	99	1.00	0.10

* LLQC: Low-level quality control
**HLQC: High-level quality control

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