

[ APPLICATION BRIEF ]

**Solvent Tolerance (Acetonitrile and Methanol):**

AflaTest WB SR+ was evaluated for its ability to bind/hold aflatoxins when challenged by high concentrations of acetonitrile and methanol organic solvents.

**2 ng and 500 ng spike in 30% acetonitrile/PBS**

Acetonitrile	Spiking (ng)	AFL	Mean	SD	CV%
30%	2 ng	G <sub>2</sub>	92.1	3.64	3.95
		G <sub>1</sub>	94.7	4.95	5.23
		B <sub>2</sub>	97.8	5.56	5.69
		B <sub>1</sub>	105.2	1.44	1.37
	500 ng	G <sub>2</sub>	87.7	3.09	3.53
		G <sub>1</sub>	98.6	3.76	3.82
		B <sub>2</sub>	96.5	3.93	4.08
		B <sub>1</sub>	102.2	4.16	4.07

**2 ng and 500 ng spike in 40% methanol/PBS**

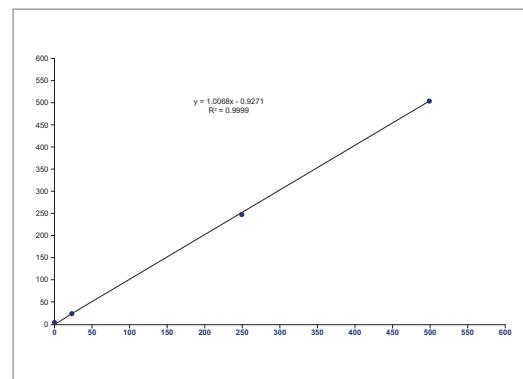
Methanol	Spiking (ng)	AFL	Mean	SD	CV%
40%	2 ng	G <sub>2</sub>	91.1	1.83	2.0
		G <sub>1</sub>	97.9	1.31	1.3
		B <sub>2</sub>	93.5	3.70	4.0
		B <sub>1</sub>	104.7	4.55	4.3
	500 ng	G <sub>2</sub>	89.8	3.80	4.2
		G <sub>1</sub>	97.9	1.31	1.3
		B <sub>2</sub>	93.5	3.70	4.0
		B <sub>1</sub>	104.0	3.77	3.6

**LOD | LOQ | Linearity**

Spiked corn samples used to determine linearity, LOD, LOQ.

**LOD & LOQ**

Aflatoxins	LOD (ng)	LOQ (ng)
G <sub>2</sub>	0.008	0.015
G <sub>1</sub>	0.034	0.083
B <sub>2</sub>	0.007	0.012
B <sub>1</sub>	0.037	0.057



**Traditional Chinese Herbs**

Aflatoxins recoveries for *Fallopia multiflora* using AflaTest WB SR+ with LC for detection.

Spiked Levels	Recovery %			
	G <sub>2</sub>	G <sub>1</sub>	B <sub>2</sub>	B <sub>1</sub>
5 ppb	98.7	104.7	96.0	102.7
20 ppb	96.0	99.0	93.3	98.0

Additional data available upon request – contact us: [techservice@VICAM.com](mailto:techservice@VICAM.com)

**DESIGNED FOR LC OR LC-MS/MS DETECTION OF:**

- Aflatoxin B<sub>1</sub>
- Aflatoxin B<sub>2</sub>
- Aflatoxin G<sub>1</sub>
- Aflatoxin G<sub>2</sub>
- Aflatoxin M<sub>1</sub>
- Aflatoxin M<sub>2</sub>
- Sterigmatocystin





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## Performance Data by Commodity/Sample Matrix

AflaTest WB SR+ validation was performed for a variety of food and agricultural product sample matrices, including chilli powder, black pepper, peanuts, peanut oil, roasted coffee, cocoa, and cereal grains.

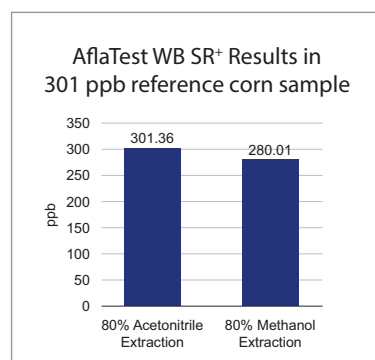
Aflatoxin	Spike (ng)	Chilli Pepper		Black Pepper		Cocoa		Roasted Coffee	
		Mean*	Std	Mean*	Std	Mean*	Std	Mean*	Std
G <sub>2</sub>	0.46	106.8	5.5	104.1	1.8	107.3	1.4	95.5	4.4
G <sub>1</sub>	1.5	109.4	6.8	100.7	1.8	107.4	2.2	95.8	7.8
B <sub>2</sub>	0.46	102.8	6.5	100.2	1.7	98.4	1.8	86.3	3.7
B <sub>1</sub>	1.5	102.3	7.9	100.0	2.0	100.5	2.4	92.1	7.4

\*Percent Recovery, n=5 ; additional data available upon request

## Accuracy

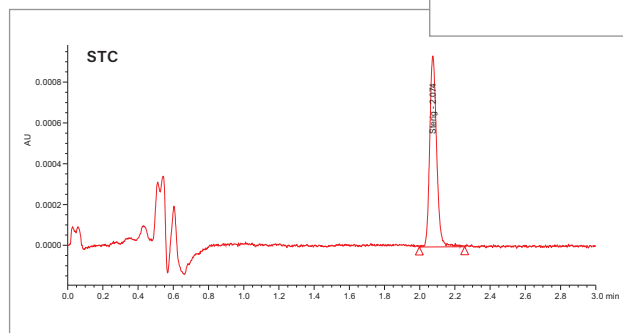
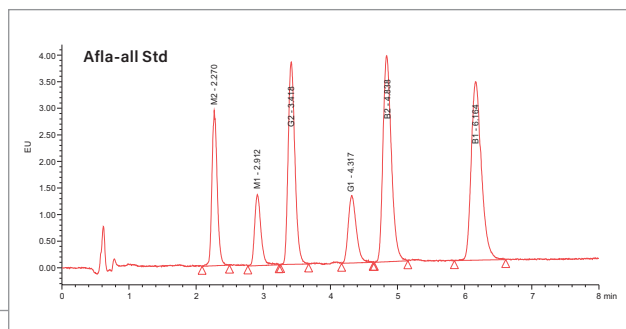
Accuracy is determined by analyzing naturally contaminated corn samples using acetonitrile and methanol extraction.

		G <sub>2</sub>	G <sub>1</sub>	B <sub>2</sub>	B <sub>1</sub>	Total (ppb)
<b>Reference Result</b>		0.30	6.20	27.1	267.1	301.1
<b>Acetonitrile Extraction</b>	Mean	3.94	6.25	27.7	263.5	301.3
	Std	0.63	0.51	0.37	4.11	4.96
<b>Methanol Extraction</b>	Mean	4.30	5.68	26.6	243.4	280.0
	Std	0.02	0.16	0.35	3.32	3.84



## Chromatogram

Representative chromatogram for UPLC conditions, aflatoxin M<sub>2</sub>, M<sub>1</sub>, G<sub>2</sub>, G<sub>1</sub>, B<sub>2</sub> and B<sub>1</sub>. Also, chromatogram for UPLC conditions for sterigmatocystin (STC).



Additional data available upon request – contact us: [techservice@VICAM.com](mailto:techservice@VICAM.com)



Try our Mycotoxins Regulations Tool at [www.commodityregs.com](http://www.commodityregs.com)

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