

Electronic supplementary information (ESI)

**Steps improving the sensitivity of sulfonamides immunodetection
in milk**

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Table S1 Comparative examination of SA determination in IC-ELISA using prepared coating antigens.

Sulfonamides	Coating antigen ($\mu\text{g mL}^{-1}$)			
	Gel-PBx10 (0.1) [19]	Gel(pi)P2Sx10 (1.0)	Gel-P2Sx30(edc) (1.0)	Gel-P2Sx30(ga) (1.0)
B/Bo for SAs at 10.000 – 100 ng mL ⁻¹ , %				
SAM	26 - 102	11 - 95	26 - 98	6 - 95
SGN	20 - 100	4 - 93	13 - 95	1 - 83
SAC	55 - 99	36 - 102	45 - 84	26 - 98
SFA	93 - nd*	90 - nd	88 - nd	83 - nd
SIZ	18 - 96	7 - 87	16 - 91	3 - 84
SMX	0 - 9	0 - 54	0 - 7	0 - 0
SET	6 - 95	0 - 92	1 - 89	0 - 78
SMT	55 - nd	45 - 93	55 - nd	29 - 76
STZ	7 - 93	0 - 81	6 - 89	1 - 78
PST	74 - nd	45 - 100	68 - nd	34 - 84
SCP	0 - 32	0 - 12	0 - 29	0 - 7
SMP	0 - 0	0 - 0	0 - 1	0 - 0
SDZ	0 - 34	0 - 21	0 - 33	0 - 9
SMR	0 - 21	0 - 9	0 - 19	0 - 4
SMZ	nd - 27	nd - 4	nd - 19	nd - 4
SDM	0 - 0	0 - 0	0 - 0	0 - 0
SMM	0 - 7	0 - 2	0 - 5	0 - 0
SDX	5 - 71	0 - 69	5 - 74	0 - 60
SLE	9 - 93	0 - 82	7 - 89	2 - 74
SQX	0 - 4	0 - 5	0 - 5	0 - 0
SNT	0 - 0	0 - 0	0 - 0	0 - 0
SPY	0 - 0	0 - 0	0 - 1	0 - 0
SSZ	35 - 73	15 - 60	29 - 54	10 - 39

* nd – not determined

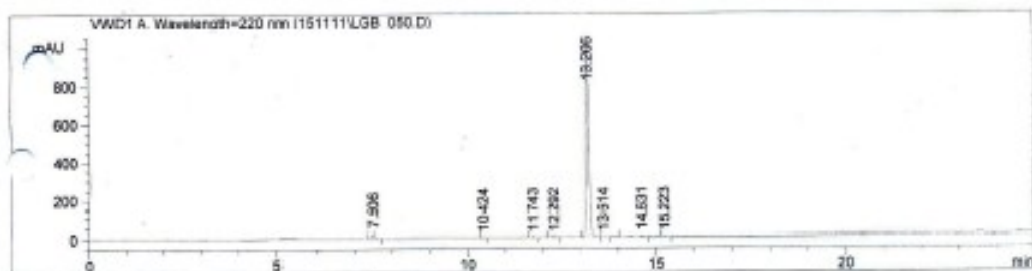
The data of the best sensitive assay variant are highlighted with red

Figure S1

ata File D:\DATA\151111\LGB_050.D
Sample Name: LGB_050

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Acq. Operator   : manager                      Seq. Line :    2
Acq. Instrument : Instrument 1                  Location  : Vial 2
Injection Date  : 11/11/2015 4:02:51 PM        Inj       :    1
                                           Inj Volume: 2 µl

Acq. Method     : D:\METHODS\CHROM_ADQ_FH.M
Last changed    : 11/11/2015 4:02:14 PM by manager
Analysis Method : D:\METHODS\GA.M
Last changed    : 11/11/2015 4:33:37 PM by manager
Sample Info     : Column: Reprosil-Pur Basic C18 250*4.6 mm Sun
                  A: H2O 0.01% tfa B: MeCN 0.01% tfa
                  5-100 %B at 20min
=====
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Area Percent Report
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Sorted By      : Signal
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
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Signal 1: VWD1 A, Wavelength=220 nm

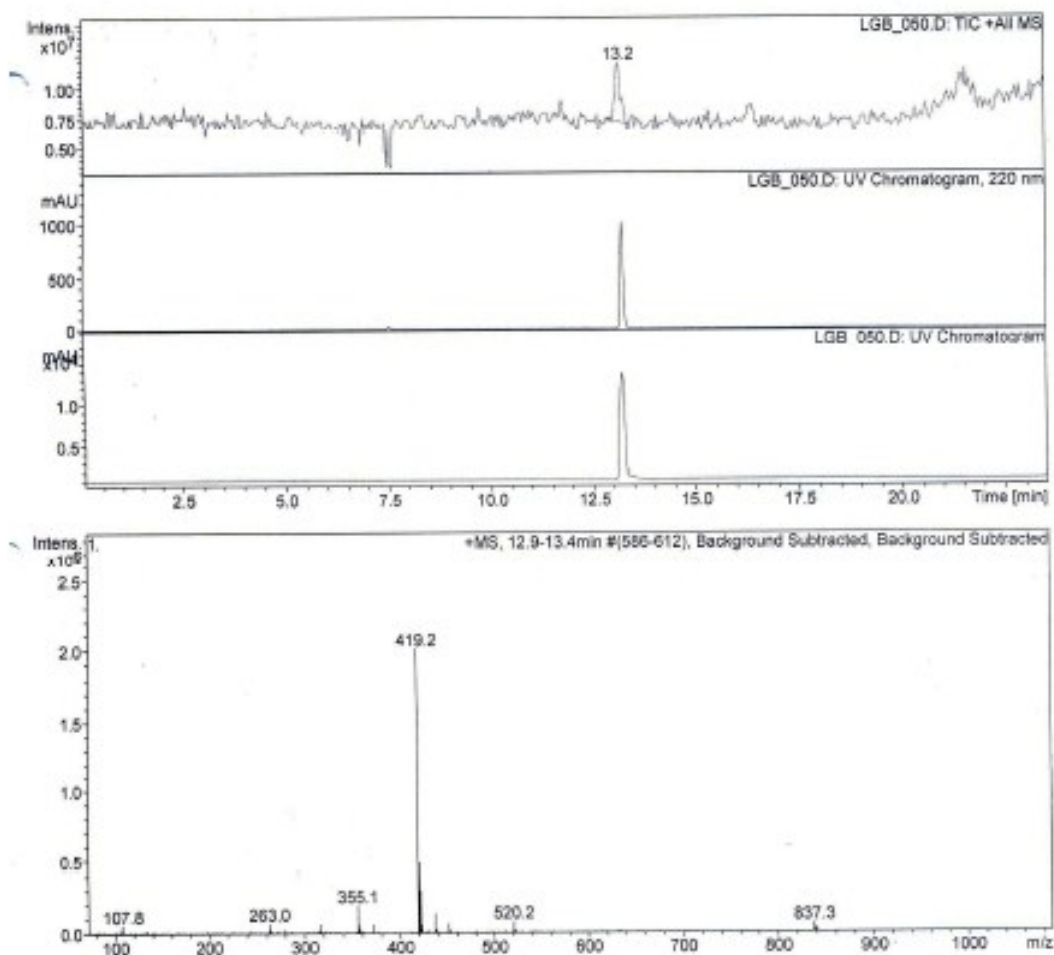
Peak #	RetTime [min]	Type	Width [min]	Area mAU *s	Height [mAU]	Area %
1	7.506	MM	0.0752	104.75565	23.20460	1.9992
2	10.424	MM	0.0591	5.31326	1.49776	0.1014
3	11.743	MM	0.0744	5.16559	1.15661	0.0986
4	12.292	MM	0.1023	5.39041	8.78131e-1	0.1029
5	13.206	MF	0.0841	5060.04492	1003.23071	96.5677
6	13.614	FM	0.1093	5.72648	8.73088e-1	0.1093
7	14.631	MM	0.1518	41.98088	4.60803	0.8012
8	15.223	MM	0.0808	11.51876	2.37709	0.2198

Totals : 5239.89595 1037.82601

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*** End of Report ***

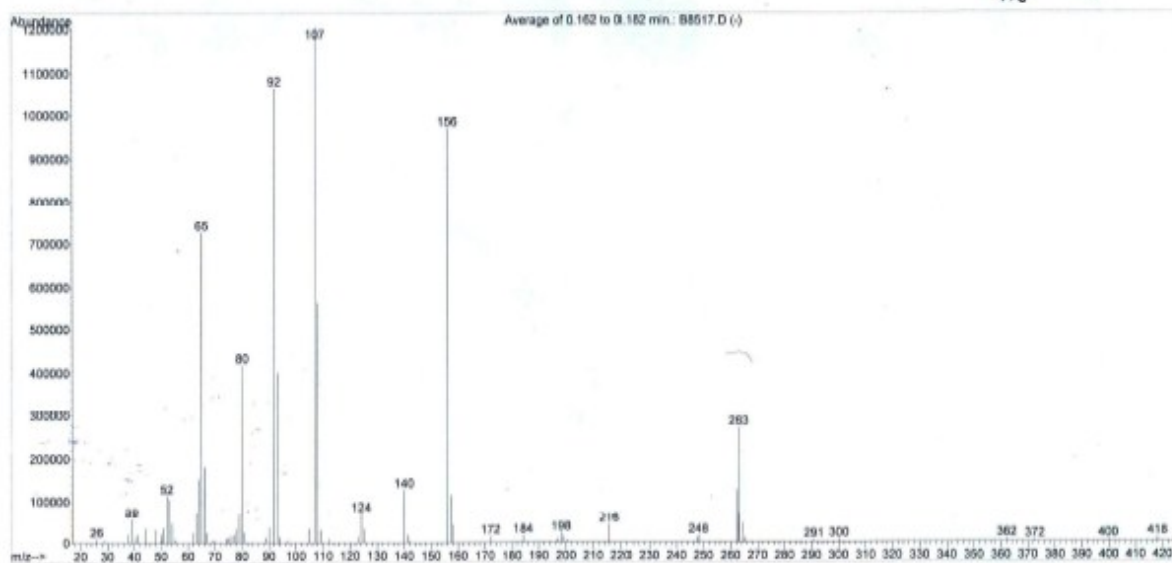
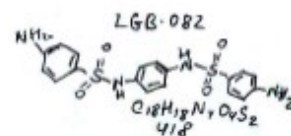
Analysis Name: LGB_050.D
Method: CHROM_ADC_PN.M
Sample Name: LGB_050
Analysis Info: Column: Reprosil-Pur Basic C18 250*4.6 mm Sum
A: H2O 0,01% tfa B: MeCN 0,01% tfa
5-100 %B at 20min
Instruments: LC-MSD-Trip-Cl
Operator: Administrator

Print Date: 11/11/2015 4:37:17 PM
Acq. Date: 11/11/2015 4:03:23 PM



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File : C:\MSDCHEM\1\DATA\B8517.D
 Operator :
 Acquired : 13 Oct 2015 12:37 using AcqMethod DIP_1.M
 Instrument : INCO550
 Sample Name: NMR/25227135
 Misc Info :
 Vial Number: 1



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 71
 72
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 74
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