

Table S2. Intra-run and inter-run reproducibility of spectral measurements. Intraday repeatability was evaluated using the top 10 spectral peaks obtained from three dots measured within the same day at varying concentrations of 143B cells, whereas inter-run reproducibility was assessed from measurements performed on three different days. Data are expressed as mean $\pm$ SD. m/z; mass per charge ratio; SNR; signal-to-noise ratio

Intra-run assay						
Main peaks	10,000 cells per spot		1,000 cells per spot		100 cells per spot	
	m/z (means $\pm$ SD)	SNR (means $\pm$ SD)	m/z (means $\pm$ SD)	SNR (means $\pm$ SD)	m/z (means $\pm$ SD)	SNR (means $\pm$ SD)
1	4056.4240 $\pm$ 0.4226	40 $\pm$ 7.7675	4057.8467 $\pm$ 0.1650	36 $\pm$ 10.2144	4058.1607 $\pm$ 0.3548	20 $\pm$ 3.4641
2	4938.0293 $\pm$ 0.1527	34 $\pm$ 9.1652	7004.7380 $\pm$ 1.2285	20 $\pm$ 6.2450	5675.0297 $\pm$ 1.5811	12 $\pm$ 0.5774
3	4956.5180 $\pm$ 0.4558	22 $\pm$ 7.5719	11353.0077 $\pm$ 0.4758	17 $\pm$ 6.8069	5653.9873 $\pm$ 0.6762	10 $\pm$ 1.1547
4	7006.4390 $\pm$ 0.6241	24 $\pm$ 4.9329	14013.7390 $\pm$ 0.6406	25 $\pm$ 14.5717	7005.4997 $\pm$ 2.3442	12 $\pm$ 3.2146
5	14016.6307 $\pm$ 2.2309	23 $\pm$ 2.6458	7036.3207 $\pm$ 11.4489	15 $\pm$ 2.5166	5691.2600 $\pm$ 5.6195	10 $\pm$ 0.5774
6	7037.8963 $\pm$ 0.8255	17 $\pm$ 3.6056	11312.3043 $\pm$ 3.0072	14 $\pm$ 6.1101	11350.2013 $\pm$ 0.7208	9 $\pm$ 1.1547
7	4976.6000 $\pm$ 0.4403	14 $\pm$ 4.1633	14049.0660 $\pm$ 7.2240	18 $\pm$ 8.6603	4082.9680 $\pm$ 0.8086	6 $\pm$ 1.0000
8	6651.3877 $\pm$ 0.4299	14 $\pm$ 3.7859	11374.5080 $\pm$ 3.0073	14 $\pm$ 6.0277	11310.4277 $\pm$ 1.4915	8 $\pm$ 1.1547
9	6958.2353 $\pm$ 3.4706	9 $\pm$ 1.7321	14073.1383 $\pm$ 2.8125	15 $\pm$ 6.9282	11330.7093 $\pm$ 2.9476	8 $\pm$ 1.7321
10	4092.7773 $\pm$ 1.2702	9 $\pm$ 1.5275	5675.6717 $\pm$ 0.4910	12 $\pm$ 2.0817	5714.2260 $\pm$ 7.9486	8 $\pm$ 7.9486

Inter-run assay						
Main peaks	10,000 cells per spot		1,000 cells per spot		100 cells per spot	
	m/z (means $\pm$ SD)	SNR (means $\pm$ SD)	m/z (means $\pm$ SD)	SNR (means $\pm$ SD)	m/z (means $\pm$ SD)	SNR (means $\pm$ SD)
1	4937.7400 $\pm$ 0.3915	100 $\pm$ 0.0000	7005.0867 $\pm$ 0.7276	53 $\pm$ 23.8298	4060.0100 $\pm$ 1.2926	74 $\pm$ 24.0345
2	4957.0833 $\pm$ 0.8875	56 $\pm$ 14.0672	4938.1633 $\pm$ 0.5845	85 $\pm$ 15.5995	4936.3067 $\pm$ 0.8788	43 $\pm$ 12.7208
3	4976.9500 $\pm$ 0.4574	30 $\pm$ 8.9713	5682.3400 $\pm$ 14.4000	41 $\pm$ 25.2480	5674.0067 $\pm$ 2.4736	51 $\pm$ 20.6865
4	4060.1567 $\pm$ 0.8255	48 $\pm$ 25.6466	5653.7733 $\pm$ 1.4523	33 $\pm$ 18.0200	7004.4000 $\pm$ 2.1071	75 $\pm$ 27.3061
5	7005.5133 $\pm$ 1.6868	40 $\pm$ 20.6664	7036.3633 $\pm$ 10.7923	32 $\pm$ 16.8203	7024.3300 $\pm$ 3.0159	43 $\pm$ 10.6749
6	4449.2800 $\pm$ 0.2095	12 $\pm$ 1.6361	4959.1300 $\pm$ 1.1667	51 $\pm$ 8.1586	5637.0267 $\pm$ 15.0265	25 $\pm$ 13.8265
7	6159.3233 $\pm$ 0.7530	10 $\pm$ 2.3928	5672.3800 $\pm$ 5.3640	32 $\pm$ 14.5861	7036.7367 $\pm$ 2.4827	38 $\pm$ 7.5350
8	6260.0233 $\pm$ 31.7190	11 $\pm$ 6.9070	5707.5800 $\pm$ 3.8912	25 $\pm$ 16.2648	6647.9567 $\pm$ 0.4631	20 $\pm$ 9.7312
9	6178.9567 $\pm$ 0.8890	12 $\pm$ 2.6043	7059.6667 $\pm$ 5.5182	26 $\pm$ 16.1348	6242.5600 $\pm$ 27.9655	13 $\pm$ 8.7719
10	6981.9433 $\pm$ 1.7734	17 $\pm$ 7.7660	11353.0700 $\pm$ 1.2111	17 $\pm$ 12.2953	4285.5733 $\pm$ 8.2780	14 $\pm$ 5.0414