

Table S1. Comparison of laser intensity and relative standard deviation (RSD) values for matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF MS) analyses of myoglobin and cytochrome *c* sample spots prepared using the forced dried droplet (FDD) method with a 2-nitrophenylglycinol (2-NPG) matrix containing HCl as an additive, with and without MALDI plate scratching.









Protein sample	FDD method	Spot number	Average	Standard deviation	RSD(%)	Average of RSD(%)	Spot image
Myoglobin	Without scratching	1	4927.1	1621.0	32.9	30.7	
		2	4633.3	1322.2	28.5		
	With scratching	1	3416.3	1333.3	39.0	32.6	
		2	5496.7	1444.0	26.3		
Cytochrome <i>c</i>	Without scratching	1	13201.4	6259.0	47.4	45.4	
		2	6296.3	2728.6	43.3		
	With scratching	1	6127.9	2038.9	33.3	27.4	
		2	8499.9	1826.9	21.5		

Table S2. Comparison of charge state distributions obtained from MALDI-TOF MS analyses of myoglobin and cytochrome *c* sample spots prepared using the FDD method with a 2-NPG matrix containing HCl as an additive, with and without scratching.

Sample	Preparation method	Charge state	Spot number		Sum	Ratio of charged ion (%)
			1	2		
myoglobin	Without scratching	+1	2522.7	1842.8	4365.5	45.7
		+2	1914.5	2034.9	3949.4	41.3
		+3	491.9	755.6	1247.5	13.0
		Sum	4929.1	4633.3	9562.4	
	With scratching	+1	754.5	1882.9	2637.5	29.6
		+2	1694.2	2605.6	4299.8	48.2
		+3	967.6	1008.2	1975.8	22.2
		Sum	3416.3	5496.7	8913.1	
cytochrome <i>c</i>	Without scratching	+1	4585.4	1812.5	6397.9	32.8
		+2	6212.2	3153.9	9366.1	48.0
		+3	2403.8	1329.9	3733.7	19.2
		Sum	13201.4	6296.3	19497.7	
	With scratching	+1	1571.1	2402.8	3793.9	27.2
		+2	3199.4	4305.0	7504.4	51.3
		+3	1357.4	1792.1	3149.5	21.5
		Sum	6127.9	8499.9	14627.9	