

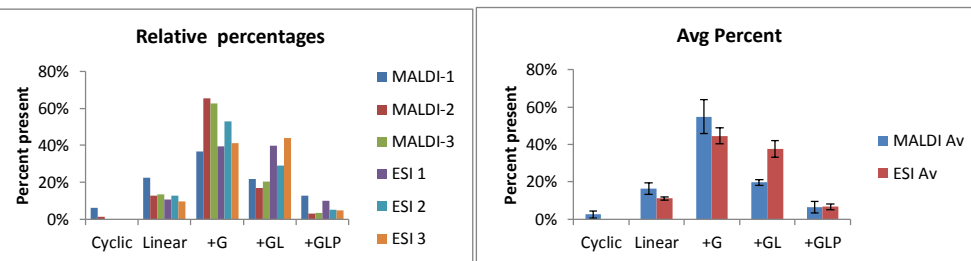
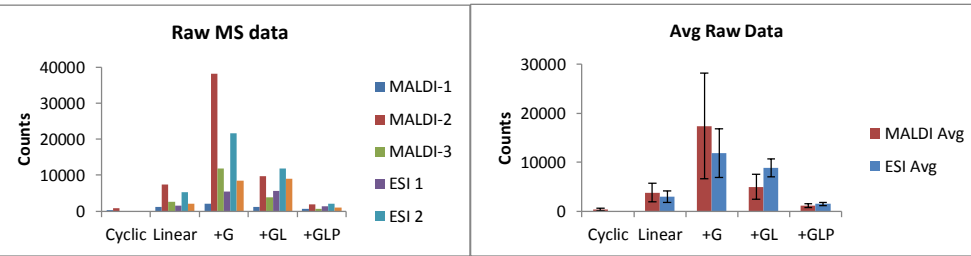
Comparison of MALDI and ESI MS Data

MALDI-MS	MALDI-1	MALDI-2	MALDI-3	MALDI Avg	MALDI SD	Std Error Mean
Cyclic	341.5	867.4	0.0	403.0	437.0	252.3
Linear	1239.8	7496.2	2589.8	3775.3	3292.4	1900.8
+G	2031.8	38148.7	11941.8	17374.1	18661.2	10774.0
+GL	1218.7	9779.3	3913.8	4970.6	4377.0	2527.1
+GLP	714.9	1908.7	637.9	1087.2	712.5	411.4
Total	5546.7	58200.3	19083.3			

ESI-MS	ESI 1	ESI 2	ESI 3	ESI Avg	ESI SD	Std Error Mean
kB1 Cyclic	0.0	0.0	0.0	0.0	0.0	0.0
kB1 Linear	1514.7	5231.4	2032.3	2926.1	2013.1	1162.3
kB1+G	5499.3	21588.8	8490.8	11859.6	8557.5	4940.7
kB1+GL	5561.3	11862.9	9039.2	8821.1	3156.5	1822.4
kB1+GLP	1378.2	2053.6	1029.5	1487.1	520.7	300.6
Total	13953.4	40736.7	20591.8			

MALDI-MS	MALDI-1	MALDI-2	MALDI-3	MALDI Av	MALDI SD	Std Error mean
Cyclic	6.2%	1.5%	0.0%	2.5%	3.2%	1.9%
Linear	22.4%	12.9%	13.6%	16.3%	5.3%	3.0%
+G	36.6%	65.5%	62.6%	54.9%	15.9%	9.2%
+GL	22.0%	16.8%	20.5%	19.8%	2.7%	1.5%
+GLP	12.9%	3.3%	3.3%	6.5%	5.5%	3.2%
Total	100%	100%	100%	100%		

ESI-MS	ESI 1	ESI 2	ESI 3	ESI Av	ESI SD	Std Error mean
kB1 Cyclic	0	0	0	0	0	0.0%
kB1 Linear	10.9%	12.8%	9.9%	11.2%	1.5%	0.9%
kB1+G	39.4%	53.0%	41.2%	44.5%	7.4%	4.3%
kB1+GL	39.9%	29.1%	43.9%	37.6%	7.6%	4.4%
kB1+GLP	9.9%	5.0%	5.0%	6.6%	2.8%	1.6%
Total	100%	100%	100%	100%		



Supp Fig 3: ESI-MS compared to MALDI MS for the Oak1-GLP* construct which was the "best" data collected by ESI-MS. All other mutants were much lower in peak area. The cyclic form could not be detected unless using MALDI-MS.

Group Statistics

type	N	Mean	Std. Deviation	Std. Error Mean
Output MALDLinear	3	3775.333	3292.134	1900.714
ESILinear	3	2926.139	2013.127	1162.279

Independent Samples Test

		Equality of		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
									Lower	Upper
Output	Equal variances assumed	1.261	.324	.381	4	.722	849.194	2227.916	-5336.492	7034.880
	Equal variances not assumed			.381	3.312	.726	849.194	2227.916	-5877.514	7575.902

Group Statistics

type	N	Mean	Std. Deviation	Std. Error Mean
Output MALDI+G	3	17374.333	18661.246	10774.075
ESI+G	3	11859.623	8557.474	4940.660

Independent Samples Test

		Equality of		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
									Lower	Upper
Output	Equal variances assumed	2.303	.204	.465	4	.666	5514.710	11852.882	-27394.167	38423.588
	Equal variances not assumed			.465	2.806	.675	5514.710	11852.882	-33729.728	44759.148

Group Statistics

type	N	Mean	Std. Deviation	Std. Error Mean
Output MALDI+GL	3	4970.667	4376.735	2526.909
ESI+GL	3	8821.122	3156.454	1822.380

Independent Samples Test

		Equality of		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
									Lower	Upper
Output	Equal variances assumed	.483	.525	-1.236	4	.284	-3850.455	3115.499	-12500.468	4799.558
	Equal variances not assumed			-1.236	3.637	.290	-3850.455	3115.499	-12851.292	5150.381

Group Statistics

type	N	Mean	Std. Deviation	Std. Error Mean
Output MALDI+GLP	3	1087.333	712.625	411.434
ESI+GLP	3	1487.102	520.665	300.606

Independent Samples Test

		Equality of		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	of the Difference	
									Lower	Upper
Output	Equal variances assumed	.756	.434	-.785	4	.477	-399.768	509.551	-1814.509	1014.972
	Equal variances not assumed			-.785	3.662	.480	-399.768	509.551	-1867.570	1068.034

Supp Fig 3: Statistical comparison of the raw data produced by MALDI and ESI-MS.