

Supporting Information for

Detection of Tear Components using MALDI-TOF-MS for

Rapid Dry Eye Diagnosis

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Table S1. The validation of the tear EV model by samples from dry eye syndrome (DES) patients. 4 samples of tear EVs and 12 samples of tear were enrolled.

Class	Name	Correct Classified Part of Valid Spectra	1	2	0	Inv.
1	Tear EVs	100%	4	0	0	1
2	Tear	91.7%	1	11	0	0

Table S2. The differential peaks of tear samples from DES and healthy control (HC) ($p < 0.05$).

Mass (Da)	P value	Mean 1 ± SD 1	Mean 2 ± SD 2
1957.14	< 0.001	43.93 ± 16.44	9.62 ± 6.67
1940.77	< 0.001	17.56 ± 7.12	3.55 ± 1.27
2740.41	< 0.001	12.03 ± 5.29	2.28 ± 0.46
2158.12	< 0.001	15.11 ± 8	3.01 ± 1.12
2502.86	0.00281	2.1 ± 0.41	5.17 ± 1.31
5106.11	0.00281	1.53 ± 0.91	3.12 ± 0.56
8564.06	0.00281	1.49 ± 0.36	2.57 ± 0.5
6174.13	0.00281	0.8 ± 0.19	1.26 ± 0.22
14690.42	0.00974	6.44 ± 1.66	4.02 ± 1.11
4981.3	0.00974	6 ± 1.19	8.35 ± 1.32
5938.08	0.0146	0.85 ± 0.37	1.66 ± 0.5
5864.31	0.0194	3.37 ± 1.23	4.92 ± 0.76
8609.64	0.0194	1.21 ± 0.35	1.95 ± 0.48
8517.62	0.0223	0.97 ± 0.31	1.64 ± 0.46
13458.31	0.0223	0.98 ± 0.33	0.63 ± 0.13
2651.92	0.0362	7.5 ± 5.04	2.7 ± 0.72
4283.82	0.0362	1.6 ± 0.66	2.5 ± 0.62
5045.8	0.0467	1.83 ± 0.76	2.56 ± 0.34

The p-value was calculated by Student's t-test if the data obey the normal distribution or calculated by the Wilcoxon test. Mean the average intensity. SD: the standard deviation of relative intensity. Class 1: DES, Class 2: HC.

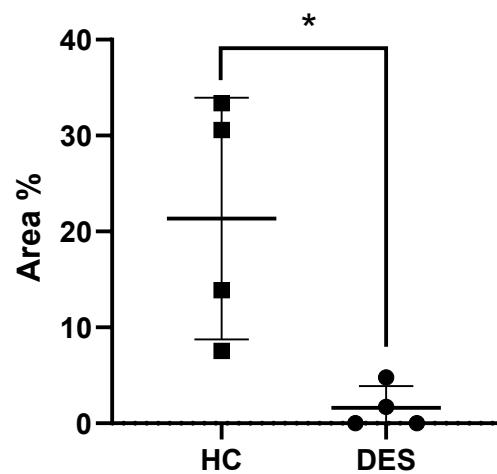


Figure S1. The relative area of peak in 17435 Da in DES and HC groups.
Mann-Whitney U test, n=4, p = 0.029.