

Supplementary Materials

Table S1: ANOVA results and mean intensities (n-cps) of the significant volatile mass ions ($p \leq 0.05$) detected in the headspace of WFCPM milk by proton transfer reaction – mass spectrometry analysis during refrigerated storage at 4.5 ± 0.5 °C between 3 and 26 days ($n=5$).

<i>m/z</i>	Storage Time (Day)											<i>df Num</i> = 11 <i>df Den</i> = 312	<i>F-ratio</i>	<i>p-value</i>
	3	7	14	16	18	20	21	22	23	24	25	26		
33	783 e	583 abc	823 e	611 bc	632 c	705 d	564 ab	547 a	583 abc	540 a	598 abc	543 a	62.77	<0.001
41	89 a	66 a	156 cd	123 b	246 f	216 e	222 e	229 ef	122 b	135 bc	178 d	225 ef	191.8	<0.001
42	84 def	63 a	86 def	77 bcde	90 ef	70 abc	92 f	83 def	78 bcde	74 abcd	83 cdef	67 ab	10.74	<0.001
43	138 b	91 a	201 de	147 bc	184 d	168 bcd	235 ef	257 f	264 f	178 cd	181 cd	891 g	690.0	<0.001
45	56 a	46 a	172 bc	106 ab	231 cd	943 g	552 f	871 g	627 f	368 e	318 de	1246 h	355.7	<0.001
46	3 ab	2 a	5 abc	4 abc	8 c	23 e	13 d	24 e	14 d	8 c	7 bc	29 f	102.7	<0.001
47	14 a	15 a	22 a	13 a	24 a	103 d	53 c	55 c	131 e	39 b	56 c	247 f	535.7	<0.001
53	12 ab	11 a	13 ab	11 a	13 ab	10 a	13 d	11 a	14 ab	20 c	16 b	12 ab	8.119	<0.001
55	137 d	99 ab	139 d	122 cd	126 cd	86 a	140 d	112 bc	136 d	211 f	168 e	135 d	48.41	<0.001
57	3 a	4 a	12 b	8 ab	22 c	25 c	21 c	25 c	11 b	9 ab	12 b	49 d	82.45	<0.001
59	10371 efg	7585 ab	9433 de	8750 cd	9720 ef	6938 a	10250 efg	8777 cd	10424 fgh	11336 h	10741 gh	8376 bc	45.30	<0.001
60	357 ef	260 ab	315 cd	296 bcd	335 de	237 a	356 ef	301 cd	366 ef	384 f	369 ef	283 bc	32.63	<0.001
61	36 abc	29 ab	31 abc	30 ab	33 abc	26 a	36 abc	46 c	95 d	44 bc	38 abc	283 e	416.8	<0.001
63	14 ab	14 abc	21 bcd	13 a	16 abc	16 abc	20 bcd	19 abcd	23 d	25 d	21 cd	65 e	77.73	<0.001
71	2 a	1 a	1 a	1 a	1 a	1 a	2 a	2 a	5 b	3 ab	1 a	33 c	202.8	<0.001
73	642 c	485 b	616 c	606 c	652 c	401 a	628 c	480 ab	666 c	776 d	796 d	591 c	46.06	<0.001
74	29 bcd	22 ab	29 bcd	29 bcd	31 cd	19 a	32 cd	24 abc	29 bcd	37 de	40 e	25 abc	13.26	<0.001
89	3 ab	2 ab	2 a	2 ab	2 ab	4 ab	4 ab	4 ab	6 b	3 ab	3 ab	39 c	157.7	<0.001

Means sharing the same alphabetic letter within the same row are not significantly different ($p > 0.05$).

Table S2: ANOVA results and mean intensities (n-cps) of the significant volatile mass ions ($p\leq0.05$) detected in the headspace of Tim milk by proton transfer reaction – mass spectrometry analysis during refrigerated storage at 4.5 ± 0.5 °C between 3 and 26 days ($n=5$).

m/z	Storage Time (Day)														df Num = 11 df Den = 274	
	3	7	14	16	18	20	21	22	23	24	25	26	F	p		
31	26 b	24 ab	23 ab	27 ab	22 ab	28 b	27 b	17 a	20 ab	24 ab	24 ab	26 ab	2.30	0.01		
33	695 a	1387 e	1348 e	1195 cd	1245 cd	1562 f	1540 f	1263 de	1314 c	1146 c	1139 c	802 b	117.50	<0.001		
41	104 ab	126 b	179 c	380 f	108 ab	123 ab	195 cd	77 a	83 ab	205 de	198 cd	252 e	87.22	<0.001		
42	95 bcd	83 abc	89 abcd	111 e	99 de	103 cde	96 cde	76 a	79 a	84 ab	83 abc	88 abcd	10.10	<0.001		
43	122 a	145 cd	187 f	173 ef	134 bc	145 bc	160 de	107 a	113 a	228 g	143 cd	184 f	42.97	<0.001		
45	66 a	111 a	204 a	1347 c	149 a	724 b	578 b	50 a	54 a	1161 c	606 b	2276 d	286.65	<0.001		
46	3 a	4 a	5 a	31 c	5 a	17 b	15 b	2 a	3 a	28 c	14 b	53 d	144.35	<0.001		
47	15 a	22 a	39 a	178 b	41 a	29 a	187 b	22 a	17 a	342 d	314 c	659 e	399.93	<0.001		
53	13 a	24 d	16 abc	21 cd	15 ab	21 bc	14 ab	11 a	12 a	13 a	15 ab	16 abc	12.11	<0.001		
55	142 ab	276 g	169 de	204 f	143 bcd	187 e	135 ab	104 a	119 ab	140 ab	133 ab	150 cde	67.46	<0.001		
57	5 a	8 abc	12 bcd	14 cd	7 a	5 a	15 d	5 a	5 a	15 d	18 d	31 e	44.15	<0.001		
59	12495 ef	12969 fg	10631	12441 ef	10938 cd	14188g	9560ab	10460bc	11430 de	9838 a	10857 cd	10803 bcd	27.97	<0.001		
60	429 a	448 fg	360 abc	419 def	375 cd	483 g	324 ab	346 abc	375 cde	321 a	377 cde	367 bc	19.44	<0.001		
63	18 a	22 abc	37 de	35 de	28 cd	23 abc	25 bc	19 ab	17 a	42 e	22 abc	40 e	26.43	<0.001		
69	2 a	1 a	1 a	54 c	2 a	4 a	3 a	2 a	1 a	3 a	16 b	19 b	49.20	<0.001		
73	708 bcd	1585 g	819 de	1083 f	777 cd	991 e	676 bcd	541 a	602 ab	644 ab	674 bc	800 cd	112.04	<0.001		
74	30 ab	73 d	35 ab	51 c	35 ab	46 b	31 ab	25 a	27 a	30 ab	32 ab	34 ab	36.52	<0.001		
87	1 a	2 a	2 a	14 c	2 a	3 a	3 a	2 a	2 a	3 a	9 b	14 c	32.73	<0.001		

Means sharing the same alphabetic letter within the same row are not significantly different ($p\leq0.05$).