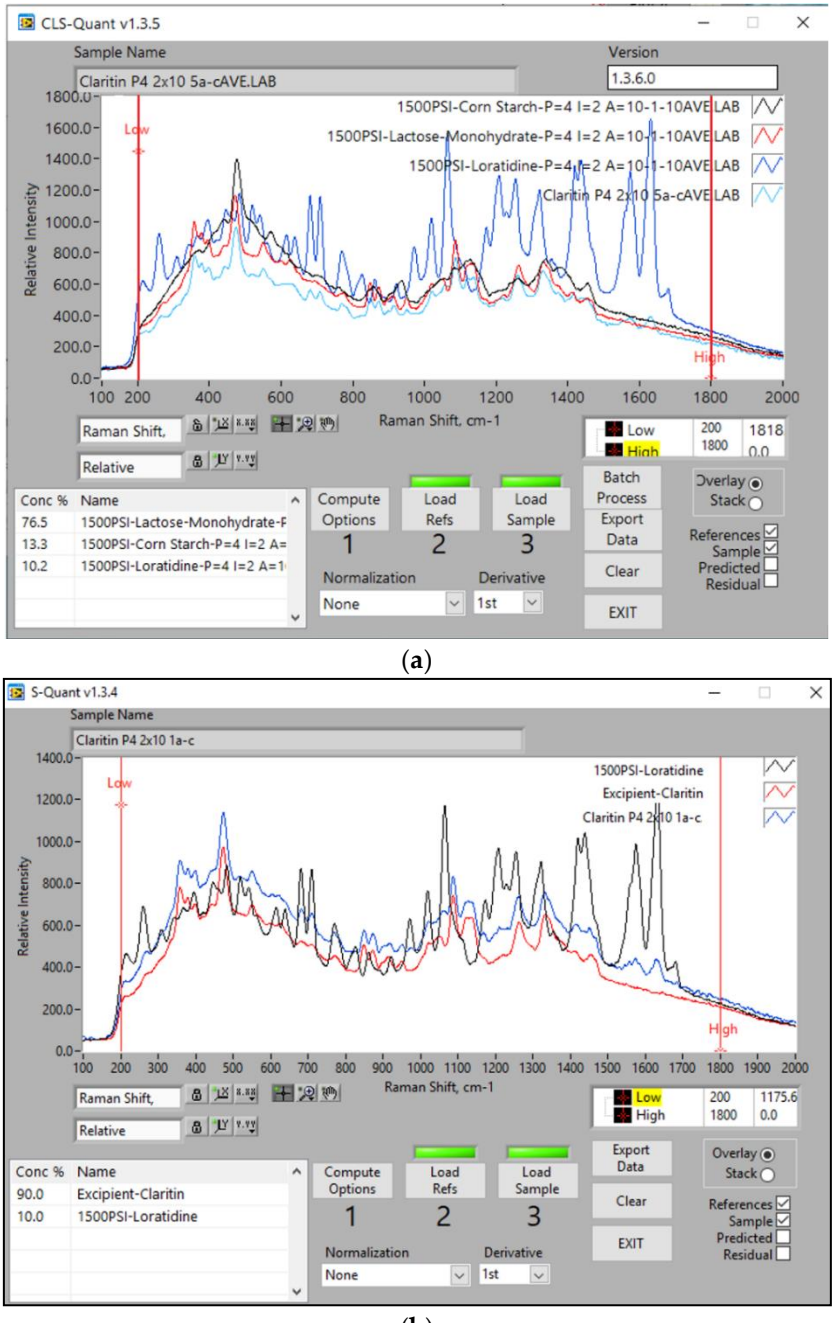
pharmaceutics

Supplementary Materials: Drug Content Uniformity: Quantifying Loratadine in Tablets Using a Created Raman Excipient Spectrum

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(**a**)

(**b**)

Figure S1. Images of S-quant software used to fit the 1st-derivative Raman spectrum of (**a**) a single Claritin tablet with loratadine, corn starch, and lactose monohydrate 1st-derivative Raman spectra, and (**b**) the 1st-derivative Raman spectrum of a single generic tablet with loratadine and a created excipient 1st-derivative Raman spectra. Measured Raman spectra are shown for clearer presentation.

Table S1. Calculated loratadine mass percents with statistics for 1st 10 and all 30 Claritin and a generic tablets by HPLC, Raman chemical component analysis, Raman created excipient analysis, and 1630 cm^{-1} peak height analysis.

	HPLC	Raman Spectroscopy						
	Claritin						Generic	Claritin
		Pure Chemical Analysis			Created Excipient Analysis			1630 cm^{-1} Peak
Tablet Number	% Loratadine	% Loratadine	% Lactose Monohydrate	% Cornstarch	% Loratadine	% Excipient	% Loratadine	% Loratadine
1	9.2	10.2	76.2	13.6	10.0	90.0	10.70	8.36
2	10.3	9.6	72.1	18.4	9.7	90.3	10.70	7.99
3	8.8	9.9	73.7	16.3	9.9	90.1	10.50	7.25
4	9.7	10.0	73.3	16.7	10.0	90.0	10.10	7.99
5	10.9	10.5	73	16.5	10.7	89.3	10.10	8.09
6	10.0	9.7	76.2	14.1	9.6	90.4	9.50	7.43
7	10.1	9.3	71.5	19.2	9.5	90.5	10.50	6.78
8	10.1	9.6	72.5	17.9	9.8	90.2	10.20	8.83
9	9.9	9.1	73.4	17.5	9.3	90.7	9.80	6.69
10	9.7	9.3	75.3	15.4	9.3	90.7	10.40	7.90
11	10.6	9.1	71.9	19	9.3	90.7	10.10	7.90
12	11.0	10.7	74.1	15.2	10.8	89.2	10.00	8.18
13	10.6	10.3	73.6	16.1	10.5	89.5	9.60	7.99
14	9.1	9.3	74.3	16.5	9.3	90.7	9.90	7.62
15	10.3	9.8	72.7	17.5	10.0	90.0	10.20	8.18
16	9.7	9.4	74.3	16.2	9.5	90.5	10.00	7.90
17	9.3	9.3	74.4	16.2	9.4	90.6	9.90	7.25
18	10.3	9.8	72	18.2	10.1	89.9	9.70	8.36
19	10.7	9.9	74.8	15.3	10.0	90.0	9.80	7.62
20	10.8	9.4	71.6	19	9.7	90.3	10.10	6.51
21	10.7	9.6	73.3	17.1	9.7	90.3	9.60	7.25
22	11.0	9.4	73.2	17.4	9.6	90.4	9.60	7.25
23	10.7	9.9	75.2	14.9	9.8	90.2	10.00	7.90
24	10.5	9.6	75.3	15.1	9.5	90.5	10.60	8.09
25	10.4	9.5	73.9	16.6	9.5	90.5	9.90	7.71
26	9.2	9.3	75.9	14.8	9.2	90.8	10.50	8.27
27	10.8	9.9	73.9	16.1	10.0	90.0	10.80	7.25
28	10.8	9.7	73.1	17.3	9.8	90.2	11.00	7.90
29	10.7	9.9	72	18.2	10.1	89.9	10.20	7.99
30	8.9	9.9	73.4	16.6	10.0	90.0	9.70	7.99
10 Tablet Mean	**9.87**	**9.72**	73.68	16.63	**9.78**	90.22	**10.25**	**7.73**
Std Dev	0.56	0.44	1.36	1.48	0.41	0.41	0.39	0.68
% Coef Var	**5.70%**	**4.49%**	1.85%	8.87%	**4.22%**	0.46%	**3.80%**	**8.83%**
30 Tablet Mean	**10.21**	**9.70**	73.54	16.69	**9.79**	90.21	**10.12**	**7.75**
Std Dev	0.630	0.393	1.365	1.476	0.403	0.403	0.399	0.531
% Coef Var	**6.17%**	**4.05%**	1.86%	8.84%	**4.12%**	0.45%	**3.94%**	**6.85%**