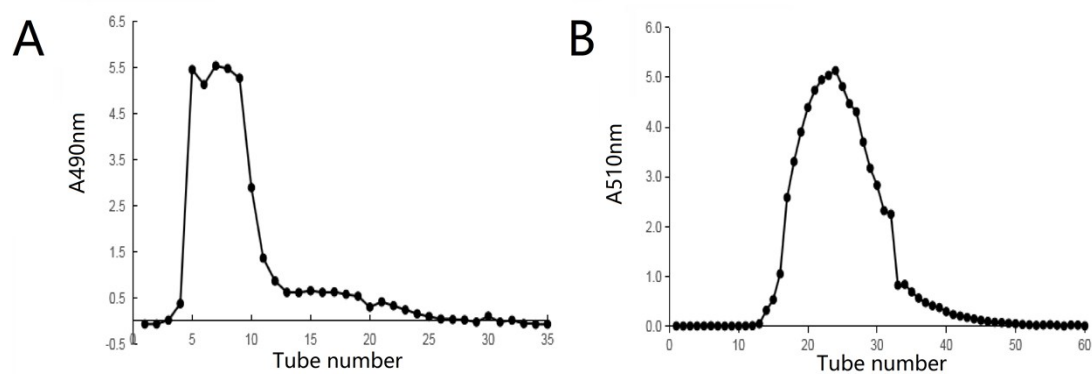


s-Figure 1: The purified flavones fraction CF sample at absorbance wavelength of (A) 490 nm and (B) 510 nm isolated from the crude flavones fraction extracted in the pretreatment M400+U400 group treated with ultrasonic wave (400 W) associated with microwave (400 W) for 40 mins using AB-8 macroporous resin.



**s-Table 1 The characteristic description of the flavone compositions in the M400+U100 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O- $\beta$ -D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.55	595.1666	0.9	11510
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.2	581.1863	-0.2	379883
2''-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.4	667.1881	1.3	130448
5,7,8,3'-Tetrahydroxy-3,4'-dimethoxy	C <sub>17</sub> H <sub>14</sub> O <sub>8</sub>	3.55	347.0745	-1.6	29595

**s-Table 2 The characteristic description of the flavone compositions in the  
U400→M400 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O-β-D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.53	595.1664	0.6	12654
Naringenin-4'-glucoside-7-rutinoside	C <sub>33</sub> H <sub>42</sub> O <sub>19</sub>	2.69	743.2399	0.6	8108
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1869	0.4	499539
2"-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.39	667.1873	0.4	153917

**s-Table 3 The characteristic description of the flavone compositions in the Water  
Bath sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O-β-D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.53	595.1664	0.7	35201
Kaempferol-3-O-(2G-α-L-rhamnosyl)- rutinoside	C <sub>33</sub> H <sub>40</sub> O <sub>19</sub>	2.65	741.2233	-0.4	10779
Naringenin-4'-glucoside-7-rutinoside	C <sub>33</sub> H <sub>42</sub> O <sub>19</sub>	2.69	743.24	0.7	21640
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1871	0.6	573260
2"-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.39	667.1886	1.7	287817
2"-O-Acetylrutin	C <sub>29</sub> H <sub>32</sub> O <sub>17</sub>	3.56	653.1728	1.6	64167

**s-Table 4 The characteristic description of the flavone compositions in the M100+U400 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O- $\beta$ -D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.53	595.165	-0.8	6355
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1873	0.8	372893
2"-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.38	667.1877	0.9	85641
5,7,8,3'-Tetrahydroxy-3,4'-dimethoxy	C <sub>17</sub> H <sub>14</sub> O <sub>8</sub>	3.55	347.0745	-1.6	60439

**s-Table 5 The characteristic description of the flavone compositions in the M400 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O- $\beta$ -D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.53	595.1666	0.9	14218
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1868	0.3	449671
2"-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.38	667.1875	0.7	153757
Xanthohumol	C <sub>21</sub> H <sub>22</sub> O <sub>5</sub>	6.72	355.152	-2	5145

**s-Table 6 The characteristic description of the flavone compositions in the  
M400→U400 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O-β-D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.53	595.1654	-0.4	13659
Naringenin-4'-glucoside-7-rutinoside	C <sub>33</sub> H <sub>42</sub> O <sub>19</sub>	2.69	743.2404	1.1	8338
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1871	0.6	488164
2"-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.38	667.187	0.1	153231

**s-Table 7 The characteristic description of the flavone compositions in the U400 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O- $\beta$ -D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.53	595.1662	0.4	21501
Naringenin-4'-glucoside-7-rutinoside	C <sub>33</sub> H <sub>42</sub> O <sub>19</sub>	2.69	743.2399	0.6	12972
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1862	-0.3	536799
2''-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.38	667.187	0.2	264773



**s-Table 8 The characteristic description of the flavone compositions in the M400+U400-30 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1865	0	76656
2"-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.38	667.1872	0.4	11505
5,7,8,3'-Tetrahydroxy-3,4'-dimethoxy	C <sub>17</sub> H <sub>14</sub> O <sub>8</sub>	3.55	347.0753	-0.8	64167
(3R)-Duartin	C <sub>18</sub> H <sub>20</sub> O <sub>6</sub>	5.04	333.1314	0.9	13173

**s-Table 9 The characteristic description of the flavone compositions in the M400+U400-40 sample group based on PR-LCMS analysis**

Chemical component	Chemical formula	Retention time (min)	m/z	Error	Response value
Genistein-7,4'-di-O- $\beta$ -D-glucoside	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>	2.53	595.1668	1	29156
Naringin	C <sub>27</sub> H <sub>32</sub> O <sub>14</sub>	3.18	581.1863	-0.2	572478
2"-O-Acetyl-3'-O-methylrutin	C <sub>30</sub> H <sub>34</sub> O <sub>17</sub>	3.38	667.788	1.2	100598
5,7,8,3'-Tetrahydroxy-3,4'-dimethoxy	C <sub>17</sub> H <sub>14</sub> O <sub>8</sub>	3.55	347.0752	-0.9	418181
(3R)-Duartin	C <sub>18</sub> H <sub>20</sub> O <sub>6</sub>	5.12	333.1324	-0.9	50422