**Supplementary Table S3.** Syntenic flanking genes of *BraA.Gα1* (Bra007761) present in the chromosomal block I of *B. rapa*, as available in BRAD database (http://www.brassicadb.org/). The information of *B. rapa* syntenic orthologs of 34 representative *A. thaliana* genes flanking the *AtGPA1* gene is shown. LF, MF1 and MF2 represents the least gene fractionized, moderately gene fractionized and most gene fractionized subgenomes of *B. rapa*, respectively and the linkage group is marked with parenthesis.

<table>
<thead>
<tr>
<th>S No.</th>
<th><em>A. thaliana</em></th>
<th><em>B. rapa</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LF (A09)</td>
</tr>
<tr>
<td>1</td>
<td>At2g26130</td>
<td>Bra034292</td>
</tr>
<tr>
<td>2</td>
<td>At2g26140</td>
<td>Bra007768</td>
</tr>
<tr>
<td>3</td>
<td>At2g26150</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>At2g26160</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>At2g26170</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>At2g26180</td>
<td>Bra034294</td>
</tr>
<tr>
<td>7</td>
<td>At2g26190</td>
<td>Bra034295</td>
</tr>
<tr>
<td>8</td>
<td>At2g26200</td>
<td>Bra034296</td>
</tr>
<tr>
<td>9</td>
<td>At2g26210</td>
<td>Bra034297</td>
</tr>
<tr>
<td>10</td>
<td>At2g26230</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>At2g26240</td>
<td>Bra007767</td>
</tr>
<tr>
<td>12</td>
<td>At2g26250</td>
<td>Bra007766</td>
</tr>
<tr>
<td>13</td>
<td>At2g26260</td>
<td>Bra007764</td>
</tr>
<tr>
<td>14</td>
<td>At2g26267</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>At2g26270</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>At2g26280</td>
<td>Bra007762</td>
</tr>
<tr>
<td>17</td>
<td>At2g26290</td>
<td>Bra007786</td>
</tr>
<tr>
<td><strong>18</strong></td>
<td><strong>At2g26300</strong></td>
<td><strong>Bra007761</strong></td>
</tr>
<tr>
<td>19</td>
<td>At2g26310</td>
<td>Bra034304</td>
</tr>
<tr>
<td>20</td>
<td>At2g26320</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>At2g26330</td>
<td>Bra007759</td>
</tr>
<tr>
<td>22</td>
<td>At2g26340</td>
<td>Bra007758</td>
</tr>
<tr>
<td>23</td>
<td>At2g26350</td>
<td>Bra007757</td>
</tr>
<tr>
<td>24</td>
<td>At2g26360</td>
<td>Bra034305</td>
</tr>
<tr>
<td>25</td>
<td>At2g26370</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>At2g26380</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>At2g26390</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>At2g26400</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>At2g26410</td>
<td>Bra000540</td>
</tr>
<tr>
<td>30</td>
<td>At2g26420</td>
<td>Bra007756</td>
</tr>
<tr>
<td>31</td>
<td>At2g26420</td>
<td>Bra007752</td>
</tr>
<tr>
<td>32</td>
<td>At2g26440</td>
<td>Bra000540</td>
</tr>
<tr>
<td>33</td>
<td>At2g26460</td>
<td>Bra007752</td>
</tr>
<tr>
<td>34</td>
<td>At2g26470</td>
<td>Bra007753</td>
</tr>
</tbody>
</table>