

**Table S2.** Selection characteristics of tomato traditional parental lines used in the development of F1 hybrids.

Genotypes	Type	Number of Crosses		Characteristics
		Male	Female	
BGMU01010600 (P1)	Corazón de toro	1	-	<ul style="list-style-type: none"> <li>• Very good taste</li> <li>• Equilibrate flavor</li> </ul>
BGMU01010922 (P2)	de la Sierra	4	-	<ul style="list-style-type: none"> <li>• Good taste</li> <li>• Chlorophyll content</li> <li>• High phenolic compounds content</li> <li>• High lycopene content</li> </ul>
BGMU01010639 (P3)	Flor de Baladre	0	2	<ul style="list-style-type: none"> <li>• Agronomic performance</li> <li>• Good taste</li> </ul>
BGMU01010640 (P4)	Flor de Baladre	1	-	<ul style="list-style-type: none"> <li>• Agronomic performance</li> <li>• Very good taste</li> </ul>
BGMU01010609 (P5)	Kumato	1	1	<ul style="list-style-type: none"> <li>• Chlorophyll content</li> <li>• High vitamin C content</li> <li>• High carotenoids content</li> </ul>
BGMU01010661 (P6)	Mesa Murciano	3	1	<ul style="list-style-type: none"> <li>• Agronomic performance</li> <li>• Very good taste</li> </ul>
BGMU01010643 (P7)	Mesa Murciano	2	2	<ul style="list-style-type: none"> <li>• Very good taste</li> <li>• High lycopene content</li> <li>• High phenolic compounds content</li> </ul>
BGMU01010675 (P8)	Mesa Murciano	-	4	<ul style="list-style-type: none"> <li>• Agronomic performance</li> <li>• Very good taste</li> </ul>
BGMU01010646 (P9)	Muchamiel		4	<ul style="list-style-type: none"> <li>• Agronomic performance</li> <li>• Good taste</li> <li>• High vitamin C content</li> <li>• High lycopene content</li> </ul>
BGMU01010665 (P10)	Muchamiel	2		<ul style="list-style-type: none"> <li>• Agronomic performance</li> <li>• High lycopene content</li> </ul>
BGMU01010672 (P11)	Muchamiel	2		<ul style="list-style-type: none"> <li>• Very good taste</li> <li>• High phenolic compounds content</li> </ul>
BGMU01010683 (P12)	de la Pera		2	<ul style="list-style-type: none"> <li>• Agronomic performance</li> </ul>
BGMU01010602 (P13)	Pimiento	1	2	<ul style="list-style-type: none"> <li>• Agronomic performance</li> <li>• Very good taste</li> </ul>
BGMU01010633 (P14)	Pimiento	1	-	<ul style="list-style-type: none"> <li>• Very good taste</li> <li>• High lycopene content</li> </ul>