

## Supplementary Tables

**Table S1.** List of material and their origins.

| Species                         | Accession  | Donor* | 2n      | Genome   | Origin                            |
|---------------------------------|--|--------|---------|--|-----------------------------------|
| <i>Triticum aestivum</i>        | CS   | 1      | 42      | AABBDD   | China                             |
| <i>Aegilops searsii</i>         | S1267  | 2      | 14      | S <sup>s</sup> S <sup>s</sup>  | Jordan                            |
| <i>Aegilops speltoides</i>      | S162   | 2      | 14      | SS   | Israel                            |
| <i>Ae. longissima</i>           | S185   | 2      | 14      | SS <sup>l</sup>  | Israel                            |
| <i>Triticum monococcum</i>      | T137   | 2      | 14      | A <sup>m</sup> A <sup>m</sup>  | Israel                            |
| <i>Aegilops tauschii</i>        | SC1377   | 2      | 28 (4x) | DDDD   | China                             |
| <i>Triticum durum</i>           | H281 H322 H268<br>H242 H246 H261<br>H242 H259 H319<br>H305 H299<br>Langdon | 2      | 28      | AABB   | Mexico, Israel                    |
| <i>Triticum dicoccoides</i>     | H137 H141 H177<br>H179 H171 H283   | 3      | 28      | AABB   | Japan Israel Syria<br>Syria China |
| <i>Triticum carthlicum</i>      | H94 H149 AS311   | 3      | 28      | AABB   | Turkey, USA                       |
| <i>Triticum abyssinicum</i>     | H1931 H192   | 3      | 28      | AABB   | Ethiopia                          |
| <i>Dasypyrum villosum</i>       | TA10220  | 1      | 14      | VV   | Greece                            |
| <i>Dasypyrum breviaristatum</i> | PI564517   | 4      | 28      | V <sup>b</sup> V <sup>b</sup> V <sup>b</sup> V <sup>b</sup>                    | Greece                            |
| <i>Secale cereale</i>           | QH   | 3      | 14      | RR   | China                             |
| Triticale                       | Currency   | 3      | 42      | AABBRR   | Mexico                            |
| <i>Hordeum vulgare</i>          | Morex  | 2      | 14      | HH   | USA                               |
| <i>Thinopyrum intermedium</i>   | PI440041   | 4      | 42      | StStJJJ <sup>s</sup> J <sup>s</sup>  | USA                               |
| <i>Thinopyrum ponticum</i>      | PI578683   | 4      | 70      | JJJJJ <sup>s</sup> J <sup>s</sup> J <sup>s</sup> J <sup>s</sup> J <sup>s</sup> | USA                               |

\*Donor of genbank:

1 - Wheat Genetics and Genomic Resource Center, Kansas State University, Manhattan, Kansas, USA

2 - University of Haifa, Haifa, Israel;

3- Crop Research Institute, Shandong Academy of Agricultural Sciences

4- USDA-ARS, Aberdeen, Idaho, USA;

5- School of Life Science and Technology, University of Electronic Science and Technology of China

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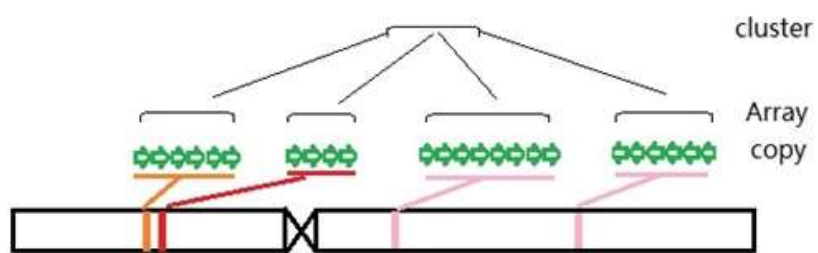


Fig. S1. The interpretation of TRs by numbers of individual copy, array and cluster.

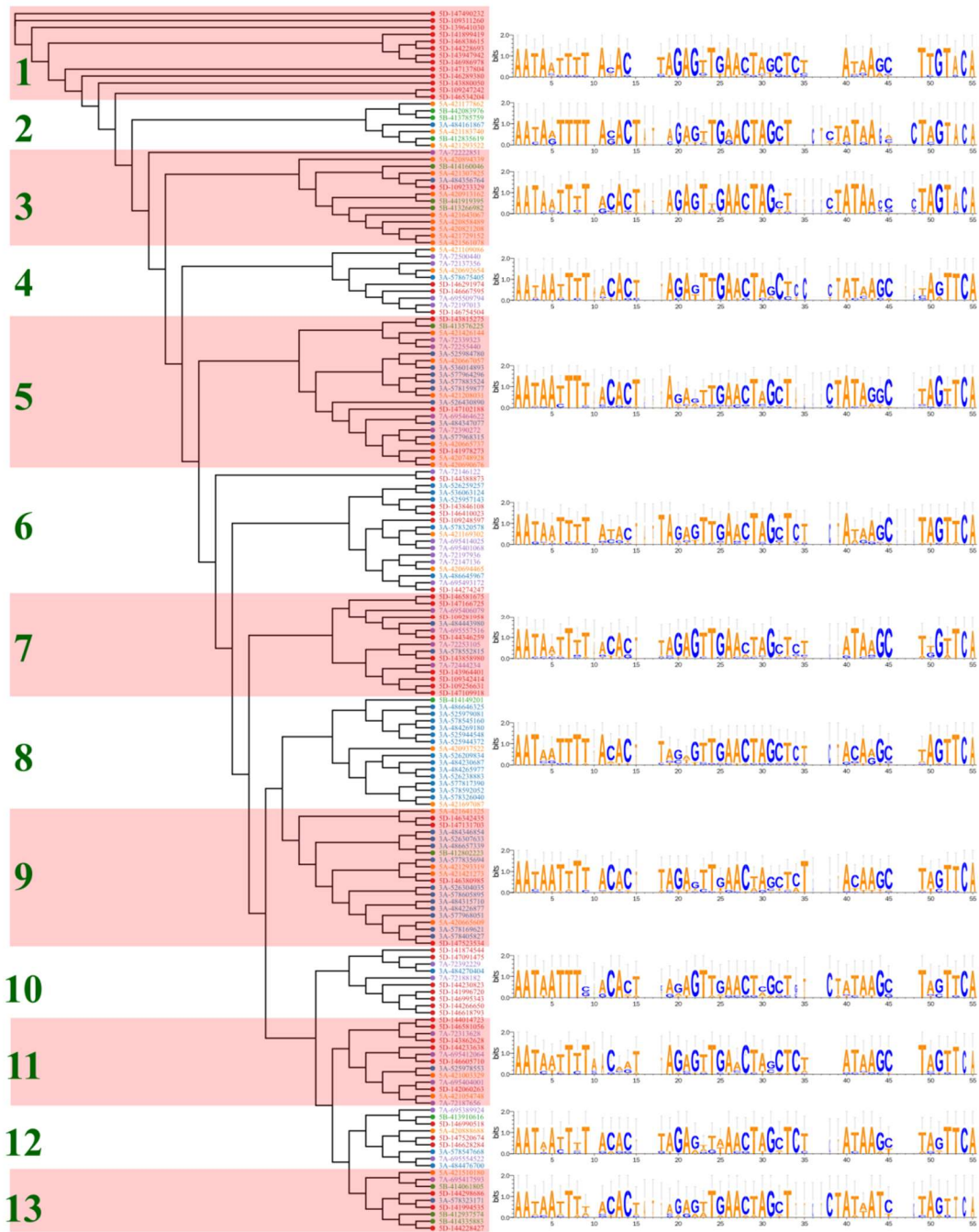


Fig. S2. Phylogenetic tree and sequence comparison of the Ta-3A1 repeats