**S2 Table**. Cultures used in principal component and genetic distance calculations with corresponding sample sizes and references.

|  |  |  |  |
| --- | --- | --- | --- |
| **Abbreviation** | **Culture** | **Location** | **Sample size [ref.]** |
| **ALP** | Alföld | Hungary | 11 [1–3] |
| **AMN** | Asia Minor Neolithic | Syria, Turkey | 19 [4,5] |
| **ANA** | Anatolian Neolithic | Turkey | 38 [3,6–9] |
| **BAC** | Baalberge | Germany | 24 [10,11] |
| **BANE** | Bronze Age northern Europe | Russia (north) | 21 [12,13] |
| **BBC** | Bell Beaker | Germany | 48 [3,10,11,14–19] |
| **BEC** | Bernburg | Germany | 17 [10] |
| **BFGF** | Blätterhöhle | Germany | 19 [20] |
| **BKG** | Lengyel | Poland | 11 [21] |
| **BZG** | Boian-Gumelniţa | Romania | 41 [22] |
| **CAT** | Catacomb | Moldova, Russia (southwest), Ukraine (east) | 20 [23] |
| **CWC** | Corded Ware | Germany, Switzerland | 61 [3,10,18,19,24,25] |
| **EBAS** | Early Bronze Age Siberia | Siberia | 66 [26,27] |
| **EES** | Eneolithic Spain | Spain | 27 [28,29] |
| **ENP** | Eneolithic North Pontic | Bulgaria, Russia (southwest), Ukraine (south) | 16 [23] |
| **ENS** | Early Neolithic Spain | Spain | 36 [30] |
| **EPP** | Epipaleolithic Europe | Belgium, France, Germany, Italy, Spain, Switzerland | 20 [31–34] |
| **MNE** | Mesolithic northern Europe | Russia (north), Sweden | 30 [12,13,19,35–38] |
| **FBC** | Funnel Beaker/TRB | Scandinavia (Germany (north), Sweden) | 9 [38–41] |
| **GLN** | Neolithic south Paris basin | France | 55 [42] |
| **LBK** | Linear Pottery | Austria, Czech Republic, Germany, Hungary | 124 [3,10,11,15,19,36,43–46] |
| **LBKT** | Transdanubian Linear Pottery | Hungary | 39 [3,19,47] |
| **MBAS** | Middle Bronze Age Siberia | Siberia | 46 [27] |
| **MCE** | Mesolithic central Europe | Germany, Luxembourg, Poland | 17 [10,19,20,34,36,48–50] |
| **MNS** | Megalithic Spain Neolithic | Spain | 27 [51] |
| **MSB** | Mesolithic Siberia | Siberia | 52 [26] |
| **MTC** | Neolithic North Pontic | Ukraine (southeast) | 19 [52] and unpublished data |
| **PLGM** | pre-LGM Europe | Austria, Belgium, Czech Republic, Italy, France, Germany, Romania, Russia | 25 [31,32,53,54] |
| **PWC** | Pitted Ware | Sweden | 35 [10,38–40,55] |
| **RC** | Rossen | Germany | 17 [10,11,15,38,40] |
| **SCG** | Schöningen | Germany | 33 [10,11] |
| **SMC** | Salzmünde | Germany | 30 [10,11] |
| **STA** | Kriș-Starčevo | Croatia, Hungary | 46 [2,3,19,47] |
| **TC** | Trypillia | Ukraine | 14 [56], this report |
| **TRE** | Treilles | France | 29 [57] |
| **UC** | Unetice | Czech Republic, Germany, Poland | 88 [10,11] |
| **YAM** | Yamna | Bulgaria, Moldova, Kazakhstan (west), Russia (southwest), Ukraine (south) | 45 [18,19,23] |

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