

**S1 Table. Identity matrix of POP amino acid sequences aligned in S1 Figure.**

| Sequence <sup>a</sup> | HsPOP | SsPOP | PhPOP | AaPOP | IsPOP | TgPOP | TcPOP | LiPOP |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>SmPOP</b>          | 51    | 51    | 49    | 50    | 51    | 45    | 41    | 41    |
| <b>HsPOP</b>          | --    | 97    | 55    | 55    | 59    | 49    | 43    | 44    |
| <b>SsPOP</b>          | --    | 54    | 55    | 60    | 49    | 43    | 44    |       |
| <b>PhPOP</b>          |       | --    | 53    | 53    | 45    | 41    | 40    |       |
| <b>AaPOP</b>          |       |       | --    | 56    | 43    | 43    | 44    |       |
| <b>IsPOP</b>          |       |       |       | --    | 49    | 43    | 44    |       |
| <b>TgPOP</b>          |       |       |       |       | --    | 41    | 41    |       |
| <b>TcPOP</b>          |       |       |       |       |       | --    | 64    |       |

<sup>a</sup> POP sequences from *S. mansoni* (SmPOP), *H. sapiens* (HsPOP), *S. scrofa* (SsPOP), *P. humanus* (PhPOP), *A. aegypti* (AaPOP), *I. scapularis* (IsPOP), *T. gondi* (TgPOP), *T. cruzi* (TcPOP) and *L. infantum* (LiPOP).