**Table S2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **gene ID** | **SP** | **PEXEL** | **TMD (aa)** | **localisation** |
|  |  |  |  |  |
| PbANKA\_114540 | + | RnLsE | - | RBC cytosol & punctuate expression in RBC cytosol |
| PbANKA\_070060 | + | RyLsE | 1 (172-194) | faint RBC cytosol |
| PbANKA\_136550 | h | RiLsE | 1 (271-292) | RBC cytosol & punctuate expression in RBC cytosol |
| PBANKA\_140070 | h | RhLaE | 2 (125-147, 149-171) | RBC cytosol |
|  |  |  |  |  |
| PbANKA\_021540 | + | RiLaD | 1 (151-173) | RBC cytosol |
| PBANKA\_000080 | + | RtLaD | 2 (196-218, 224-246) | RBC cytosol |
| PbANKA\_021580 | + | RiLaD | 2 (195-212, 217-236) | not expressed |
|  |  |  |  |  |
| PbANKA\_124660 | + | RiLaY | 2 (198-215, 220-239) | RBC cytosol & punctuate expression in RBC cytosol |
| PbANKA\_124710 | + | RiLsY | 2 (191-213, 215-237) | prominent ER/PV(M), faint RBC cytosol |
| PBANKA\_031630 | + | RiLaY | 1 (222-244) | prominent ER/PV(M), faint RBC cytosol |