**Supplementary Table 2: SeqSero discrepant results**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **SeqSero 1** | **SeqSero 2** |
| **Strain number** | **Traditional phenotypic method** | **Raw reads** | **Assembly**  | **Raw reads allele microassembly** | **Raw reads kmer** | **Assembly kmer** |
| PIR02239 | Tennessee | II 6,7:z29:[z42] or Tennessee | II 6,7:z29:[z42] or Tennessee | Tennessee | Tennessee | Tennessee\* |
| PIR02240 | Muenchen | Virginia or Muenchen | Virginia or Muenchen | Muenchen | Muenchen | Muenchen |
| PIR02241 | Goldcoast | Goldcoast or Brikama | Goldcoast or Brikama | Goldcoast or Brikama | Goldcoast or Brikama | Goldcoast or Brikama |
| PIR02243 | Tennessee | II 6,7:z29:[z42] or Tennessee | II 6,7:z29:[z42] or Tennessee | Tennessee | Tennessee | Tennessee |
| PIR02246 | Poona | Farmsen or Poona | Farmsen or Poona | Poona | Poona | Poona |
| PIR02247 | Kiambu |  II [1],4,12,27:z:1,5or Kiambu  |  II [1],4,12,27:z:1,5or Kiambu  | Kiambu | Kiambu | Kiambu |
| PIR02248 | Muenchen | Virginia or Muenchen | Virginia or Muenchen | Muenchen | Muenchen | Muenchen |
| PIR02250 | Goldcoast | Goldcoast or Brikama | Goldcoast or Brikama | Goldcoast or Brikama | Goldcoast or Brikama | Goldcoast or Brikama |
| PIR02256 | Oranienburg | II 6,7:m,t:-or Oranienburg  | II 6,7:m,t:-or Oranienburg  | Oranienburg | Oranienburg | Oranienburg |
| PIR02257 | Molade | Molade or Wippra | Molade or Wippra | Molade or Wippra | Molade or Wippra | Molade or Wippra |
| PIR02261 | Ouakam | N/A | Ouakam | N/A | N/A | N/A  |
| PIR02263 | Ruiru | Ruiru | N/A | Ruiru | Ruiru | Ruiru |
| PIR02264 | Albany | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf |
| PIR02267 | Oranienburg |  II 6,7:m,t:-Oranienburg or |  II 6,7:m,t:-Oranienburg or | Oranienburg | Oranienburg | Oranienburg |
| PIR02268 | Poona | Farmsen or Poona | Farmsen or Poona | Poona | Poona | Poona |
| PIR02271 | Indiana |  II 4,12:z:1,7or Indiana |  II 4,12:z:1,7or Indiana | Indiana | Indiana | Indiana |
| PIR02275 | Senftenberg | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau |
| PIR02277 | Oranienburg |  II 6,7:m,t:-or Oranienburg  |  II 6,7:m,t:-or Oranienburg  | Oranienburg | Oranienburg | Oranienburg |
| PIR02278 | Tennessee | II 6,7:z29:[z42] or Tennessee | II 6,7:z29:[z42] or Tennessee | Tennessee | Tennessee | Tennessee |
| PIR02281 | Indiana |  II 4,12:z:1,7or Indiana |  II 4,12:z:1,7or Indiana | Indiana | Indiana | Indiana |
| PIR02283 | Albany | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf |
| PIR02284 | Bracknell | Oudwijk or Bracknell | Oudwijk or Bracknell | Bracknell | Bracknell | Bracknell |
| PIR02285 | Senftenberg | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau |
| PIR02287 | Mbandaka | Mbandaka | N/A | Mbandaka | Mbandaka | Mbandaka |
| PIR02292 | Hadar | Hadar or Istanbul | Hadar or Istanbul | Hadar | Hadar | Hadar |
| PIR02294 | Thompson | Thompson | Ahuza | Thompson | Thompson | Thompson\* |
| PIR02295 | Lagos | Tsevie | Lagos | Lagos | Lagos | Lagos |
| PIR02296 | Indiana |  II 4,12:z:1,7or Indiana |  II 4,12:z:1,7or Indiana | Indiana | Indiana | Indiana |
| PIR02297 | Bracknell | Oudwijk or Bracknell | Oudwijk or Bracknell | Bracknell | Bracknell | Bracknell |
| PIR02299 | Molade | Molade or Wippra | Molade or Wippra | Molade or Wippra | Molade or Wippra | Molade or Wippra |
| PIR02303 | Choleraesuis | Paratyphi C or Choleraesuis or Typhisuis | Hissar | Paratyphi C or Choleraesuis or Typhisuis | Paratyphi C or Choleraesuis or Typhisuis | Paratyphi C or Choleraesuis or Typhisuis |
| PIR02310 | Hadar | Hadar or Istanbul | Hadar or Istanbul | Hadar | Hadar | Hadar |
| PIR02311 | Poona | Farmsen or Poona | Farmsen or Poona | Poona | Poona | Poona |
| PIR02315 | Virchow | Virchow | N/A | Virchow | Virchow | Virchow |
| PIR02317 | Panama | Panama or Houston | Panama or Houston | Panama or Houston | Panama or Houston | Panama or Houston |
| PIR02322 | Albany | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf | Albany or Duesseldorf |
| PIR02323 | Bracknell | Oudwijk or Bracknell | Oudwijk or Bracknell | Bracknell | Bracknell | Bracknell |
| PIR02324 | Hadar | Hadar or Istanbul | Hadar or Istanbul | Hadar | Hadar | Hadar |
| PIR02328 | Senftenberg | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau | Senftenberg or Dessau |
| PIR02330 | Enteritidis | Blegdam | Enteritidis | Enteritidis | Enteritidis | Enteritidis |
| PIR02336 | Miami |  II 9,12:a:1,5or Miami or Sendai  |  II 9,12:a:1,5or Miami or Sendai  | Miami or Sendai | Miami or Sendai | Miami or Sendai |
| PIR02337 | 1,4,5,12:i:- | Typhimurium | Potential monophasic of Typhimurium | Typhimurium | Typhimurium | Typhimurium |