

### **Supplementary Text 1. The data set for Bayesian latent class models.**

The following is the complete data set for Bayesian latent class model to estimate the accuracies of diagnostic tests for scrub typhus with conditional dependence between IgM IFA and IgM ELISA. The first, second, third, fourth, and fifth columns are the results of *in vitro* isolation of *O. tsutsugamushi* (culture), a combination of PCR assays, admission IgM IFA (positive when IFA IgM in admission sample was  $\geq 1:3,200$ ), admission IgM ELISA (positive when Optical Density of IgM ELISA in admission sample at sample dilution 1:400 was  $\geq 1.474$ ) and presence of eschar, respectively. 1= positive result and 0= negative result. Each row represents one independent participant.

```
list( y=structure(.Data=c(
```



```

0,           1,           1,           1,           0,
0,           1,           1,           1,           1), .Dim=c(135,5))
pattern=structure(
.DData=c(
 1,           1,           1,           1,           1,
 1,           1,           1,           1,           0,
 1,           1,           1,           0,           1,
 1,           1,           0,           1,           1,
 1,           0,           1,           1,           1,
 0,           1,           1,           1,           1,
 1,           1,           1,           0,           0,
 1,           1,           0,           1,           0,
 1,           0,           1,           1,           0,
 0,           1,           1,           1,           0,
 1,           1,           0,           0,           1,
 1,           0,           1,           0,           1,
 0,           1,           1,           0,           1,
 1,           0,           0,           1,           1,
 0,           1,           0,           1,           1,
 0,           1,           0,           1,           1,
 1,           1,           0,           0,           0,
 1,           0,           1,           0,           0,
 1,           0,           0,           1,           0,
 1,           0,           0,           0,           1,
 0,           1,           1,           0,           0,
 0,           1,           0,           1,           0,
 0,           1,           0,           0,           1,
 0,           0,           1,           1,           0,
 0,           0,           1,           0,           1,
 0,           0,           0,           1,           1,
 1,           0,           0,           0,           0,
 0,           1,           0,           0,           0,
 0,           0,           1,           0,           1,
 0,           0,           0,           1,           0,
 0,           0,           0,           0,           1,
 0,           0,           0,           0,           0
), .Dim=c(32,5)))

```

The following is the complete data set for Bayesian latent class model to estimate the accuracies of diagnostic tests for scrub typhus with conditional dependence between IgM IFA and IgM ELISA. The first, second, third, fourth, and fifth columns are the results of *in vitro* isolation of *O. tsutsugamushi* (culture), a combination of PCR assays, paired IgM IFA (positive when IFA IgM in admission sample was  $\geq 1:3,200$  and/or 4-fold rise to  $\geq 1:3,200$  in convalescent sample compared to admission sample), IgM ELISA (positive when the Optical Density of IgM ELISA in admission sample or convalescent sample at sample dilution 1:400 was  $\geq 1.474$ ) and presence of eschar, respectively. 1= positive result and 0= negative result. Each row represents one independent participant.



```

0,      1,      1,      1,      0,
0,      1,      1,      1,      1,
0,      1,      1,      1,      0), .Dim=c(135,5))
pattern=structure(
>Data=c(
  1,      1,      1,      1,      1,
  1,      1,      1,      1,      0,
  1,      1,      1,      0,      1,
  1,      1,      0,      1,      1,
  1,      0,      1,      1,      1,
  0,      1,      1,      1,      1,
  1,      1,      1,      0,      0,
  1,      1,      0,      1,      0,
  1,      0,      1,      1,      0,
  0,      1,      1,      1,      0,
  1,      1,      0,      0,      1,
  1,      0,      1,      0,      1,
  0,      1,      1,      0,      1,
  1,      0,      0,      1,      1,
  0,      1,      1,      1,      1,
  1,      0,      0,      1,      1,
  0,      1,      0,      1,      1,
  0,      0,      1,      1,      1,
  1,      1,      0,      0,      0,
  1,      0,      1,      0,      0,
  1,      0,      0,      1,      0,
  1,      0,      0,      0,      1,
  0,      1,      1,      0,      0,
  0,      1,      0,      1,      0,
  0,      1,      0,      0,      1,
  0,      0,      1,      1,      0,
  0,      0,      1,      0,      1,
  0,      0,      0,      1,      1,
  1,      0,      0,      0,      0,
  0,      1,      0,      0,      0,
  0,      0,      1,      0,      0,
  0,      0,      1,      0,      0,
  0,      0,      0,      1,      0,
  0,      0,      0,      0,      1,
  ), .Dim=c(32,5)))

```