

Text S1. 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 IFA IgM and PanBio IgM ICT. The first, second, third, fourth, and fifth columns are the results of *in vitro* isolation of *O. tsutsugamushi* (culture), a combination of PCR assays, STIC-based IFA IgM (positive when IFA IgM in admission sample was $\geq 1:12,800$ and/or ≥ 4 -fold rise to $\geq 1:200$ in convalescent sample compared to admission sample), PanBio IgM ICT and presence of eschar, respectively. 1= positive result and 0= negative result. Each row represents one independent participant. The sixth and seventh columns are the highest IgM titres detected by IFA IgM in admission and convalescent sample, respectively. The raw data on IgM titres were converted into binary data for each possible cutoff titre used in the model.

```
# Data
list(y=structure(
  .Data=c(
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    0, 0, 0, 1, 1, 3200, 3200,
    0, 0, 1, 1, 1, 25600, 25600,
    0, 0, 0, 0, 0, 50, NA,
    0, 0, 1, 1, 0, 25600, 25600,
    1, 1, 1, 1, 1, 25600, NA,
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    0, 0, 0, 0, 0, 50, 50,
    0, 0, 0, 1, 0, 3200, 3200,
    0, 0, 0, 1, 0, 800, 400,
    0, 1, 1, 1, 0, 12800, NA,
    1, 1, 1, 1, 1, 25600, 25600,
    0, 0, 0, 0, 0, 50, 100,
    0, 1, 0, 1, 0, 3200, 3200,
    0, 1, 0, 0, 0, 50, 50,
    0, 0, 0, 0, 0, 1600, 800,
    0, 0, 0, 0, 0, 100, NA,
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    1, 0, 0, 0, 0, 50, 100,
    0, 0, 0, 0, 0, 50, 50,
    0, 0, 0, 0, 0, 50, 50,
    0, 0, 0, 0, 0, 50, 50,
    0, 0, 1, 0, 0, 100, 800,
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    0, 0, 0, 0, 0, 50, NA,
    0, 0, 0, 0, 0, 50, 50,
    0, 1, 0, 1, 0, 3200, NA,
    0, 0, 0, 0, 0, 50, NA,
    0, 0, 0, 0, 0, 200, 50,
    0, 1, 1, 0, 0, 25600, 50,
    1, 1, 1, 1, 1, 25600, 1600,
    0, 0, 0, 0, 0, 50, 100,
    0, 1, 1, 0, 0, 25600, 25600,
    0, 0, 0, 0, 0, 50, 100,
    0, 0, 0, 0, 0, 100, 100,
    0, 0, 0, 0, 0, 100, 100,
    0, 0, 1, 1, 1, 12800, NA,
    0, 0, 0, 0, 0, 200, NA,
    0, 0, 0, 0, 0, 50, 50,
    0, 0, 1, 0, 0, 100, 400,
    0, 0, 0, 0, 0, 400, 200,
    0, 1, 0, 1, 1, 3200, NA,
    0, 0, 0, 0, 0, 50, 50,
    0, 0, 0, 0, 0, 200, 400,
    0, 0, 0, 0, 0, 200, 50,
    0, 0, 0, 0, 0, 200, 200,
    0, 0, 0, 0, 1, 50, 50,
    1, 0, 0, 0, 0, 50, 50,
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0,	0,	0,	0,	0,	50,	NA,
0,	0,	0,	0,	0,	200,	400,
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0,	0,	0,	0,	0,	100,	NA,
0,	0,	0,	0,	0,	100,	50,
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0,	0,	0,	0,	0,	50,	100,
0,	0,	0,	0,	0,	50,	50,
0,	0,	1,	0,	0,	800,	800,
0,	0,	1,	0,	0,	400,	12800,
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0,	0,	0,	0,	0,	50,	NA,
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0,	0,	0,	0,	0,	50,	50,
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0,	0,	1,	0,	0,	50,	200,
0,	0,	0,	0,	0,	50,	NA,
0,	0,	0,	0,	0,	50,	50,
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0,	0,	1,	1,	0,	25600,	25600,
0,	0,	1,	0,	0,	100,	400,
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0,	0,	1,	0,	0,	50,	800,
0,	0,	1,	0,	0,	50,	1600,
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0,	0,	0,	0,	0,	200,	400,
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0,	0,	0,	0,	0,	50,	50,

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0,      0,      1,      0,      0,      50,      800,
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0,      0,      0,      0,      0,      50,      50,
0,      0,      0,      0,      0,      200,      NA,
0,      0,      0,      1,      0,      400,      100,
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0,      0,      0,      0,      0,      50,      50,
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0,      0,      0,      0,      0,      50,      50
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1,      1,      0,      1,      1,
1,      0,      1,      1,      1,
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1,      1,      1,      0,      0,
1,      1,      0,      1,      0,
1,      0,      1,      1,      0,
0,      1,      1,      0,      1,
1,      0,      1,      0,      1,
0,      1,      1,      0,      1,
1,      0,      0,      1,      1,
0,      0,      1,      1,      1,
1,      1,      0,      0,      0,
1,      0,      1,      0,      0,
1,      0,      0,      0,      1,
0,      1,      1,      0,      0,
0,      1,      0,      1,      0,
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0,      0,      1,      0,      1,
1,      0,      0,      1,      1,
0,      1,      0,      0,      0,
0,      0,      0,      1,      1,
0,      0,      0,      0,      0,
0,      1,      0,      0,      0,
0,      0,      1,      0,      0,
0,      0,      0,      1,      0,
0,      0,      0,      0,      1,
0,      0,      0,      0,      0
),.Dim=c(32,5)))

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0,      0,      0,      0,      0,
0,      0,      0,      0,      0,
0,      1,      1,      1,      1,
0,      1,      1,      1,      0,
0,      1,      1,      1,      1,
0,      0,      0,      0,      0,
0,      0,      0,      0,      1,
0,      0,      0,      0,      0,
0,      0,      0,      0,      0,
0,      0,      0,      0,      0,
0,      0,      0,      0,      0,
0,      0,      0,      1,      0,
0,      0,      0,      0,      0,
0,      0,      0,      0,      0,
0,      0,      0,      1,      0,
0,      0,      0,      0,      0
),.Dim=c(161,5)),
pattern=structure(
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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,
0,      1,      1,      1,      0,
1,      1,      0,      0,      1,
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0,      1,      1,      0,      0,
0,      1,      0,      1,      0,
0,      0,      1,      1,      0,
0,      0,      1,      0,      1,
0,      0,      0,      1,      1,
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0,      1,      0,      0,      0,
0,      0,      1,      0,      0,
0,      0,      0,      1,      0,
0,      0,      0,      0,      1,
0,      0,      0,      0,      0
),.Dim=c(32,5))

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