

TABLE S1: Goodness of fit test results

| Alternative Hypothesis | p-value |
|------------------------|---------|
| GLM-NB $>$ Poisson | 0.000 |
| ZIP $>$ Poisson | 0.000 |
| ZINB $>$ GLM-NB | 0.660 |
| GLM-NB $>$ HNB | 0.046 |

GLM-NB = generalized linear model with negative binomial distribution

Poisson = generalized linear model with Poisson distribution

ZIP = zero-inflated poisson model

ZINB = zero-inflated negative binomial model

HNB = negative binomial hurdle model.