

Prior knowledge of marker genes

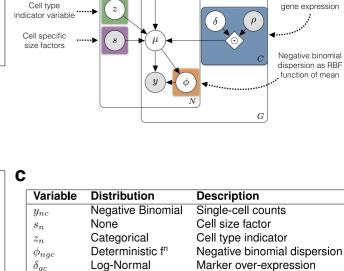
Cells

a

Expression count matrix for

heterogeneous population

Dim-1



None

None

None

Gaussian

 ρ_{qc}

 x_{np}

 β_{pg}

a, b

Cell type specific

increase in marker

Marker-cell type matrix

Covariate coefficients

Covariates (batch or sample)

Dispersion basis coefficients

b

0000

Batch & sample

specific covariates