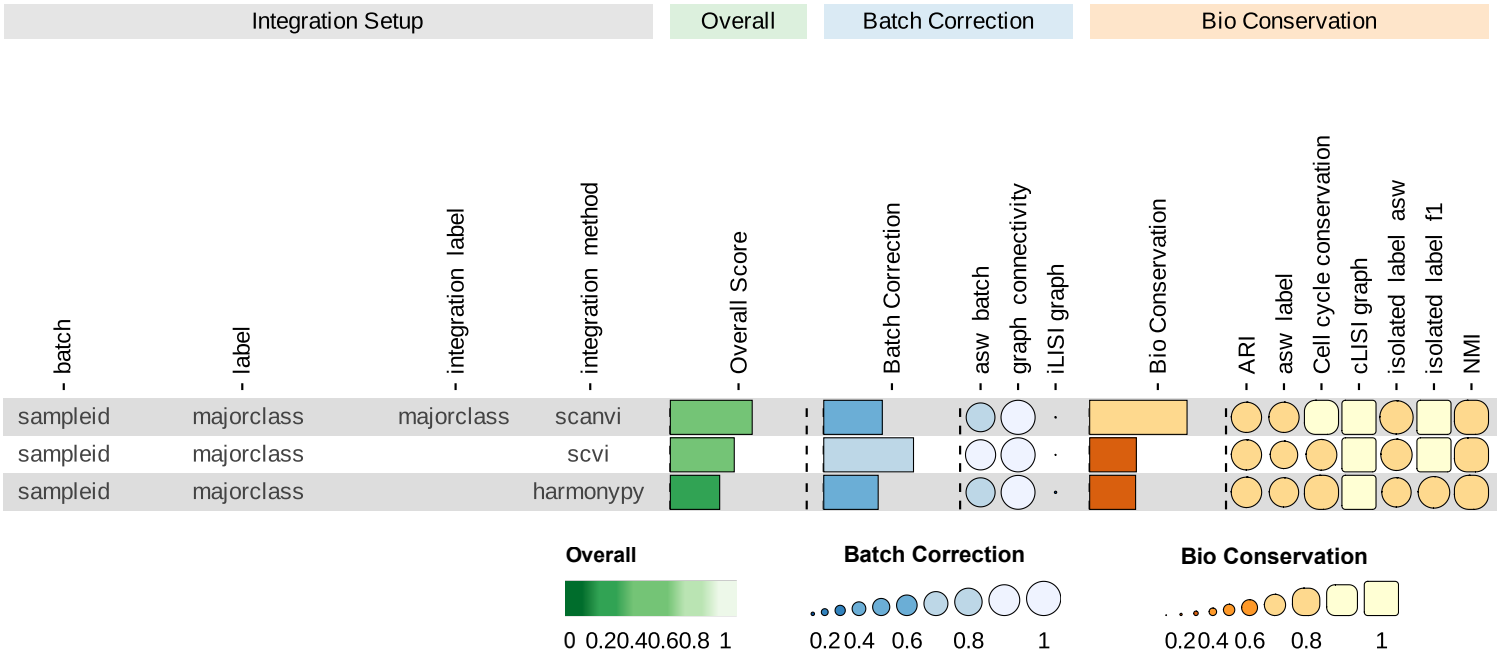
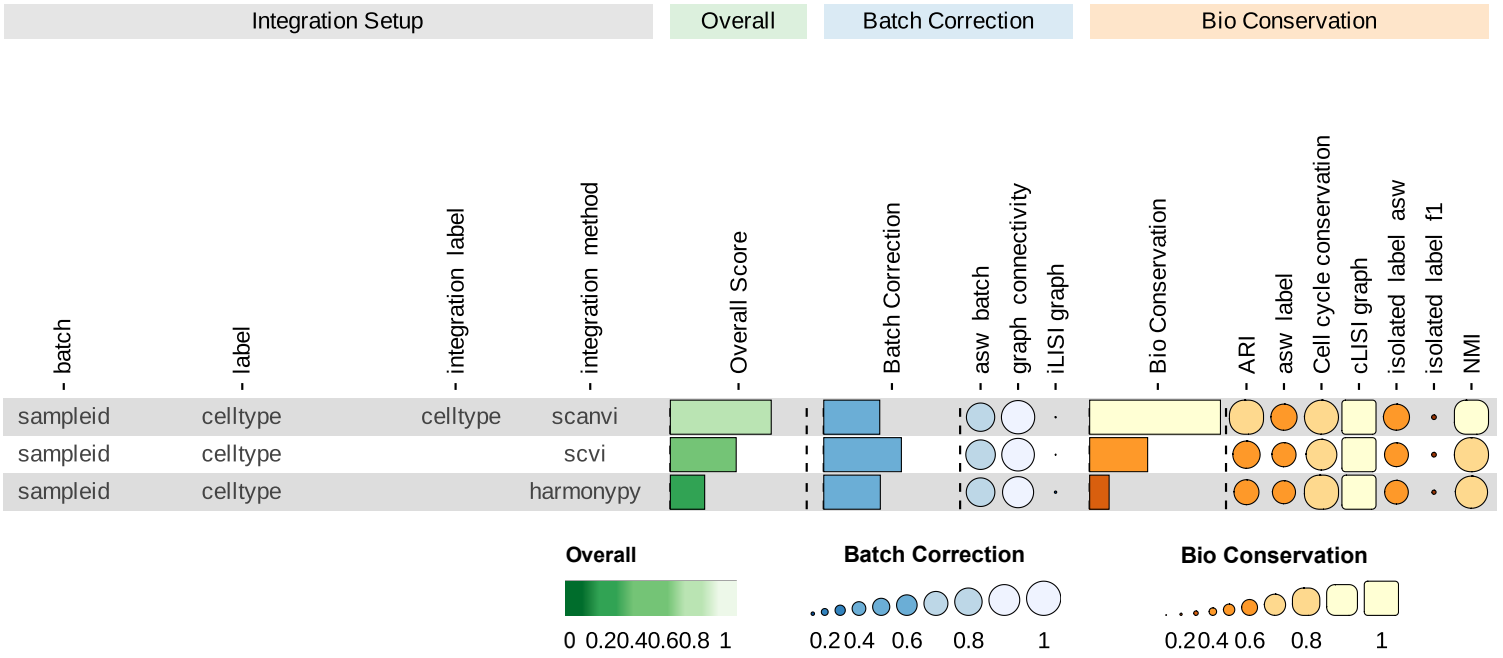
a


Integration Setup
Overall
Batch Correction
Bio Conservation
batch
label
integration label
integration method
Overall Score
Batch Correction
asw batch
graph connectivity
iLISI graph
Bio Conservation
ARI
asw label
Cell cycle conservation
cLISI graph
isolated label asw
isolated label f1
NMI
sampleid majorclass majorclass scanvi
sampleid majorclass scvi
sampleid majorclass harmonypy
Overall
0 0.2 0.4 0.6 0.8 1
Batch Correction
0.2 0.4 0.6 0.8 1
Bio Conservation
0.2 0.4 0.6 0.8 1

b


Integration Setup
Overall
Batch Correction
Bio Conservation
batch
label
integration label
integration method
Overall Score
Batch Correction
asw batch
graph connectivity
iLISI graph
Bio Conservation
ARI
asw label
Cell cycle conservation
cLISI graph
isolated label asw
isolated label f1
NMI
sampleid celltype celltype scanvi
sampleid celltype scvi
sampleid celltype harmonypy
Overall
0 0.2 0.4 0.6 0.8 1
Batch Correction
0.2 0.4 0.6 0.8 1
Bio Conservation
0.2 0.4 0.6 0.8 1

Extended Data Figure 2. Benchmarking of the integration method
a, Benchmarking of the integration method in the cell class level. **b,** Benchmarking of the integration method in the cell type level.