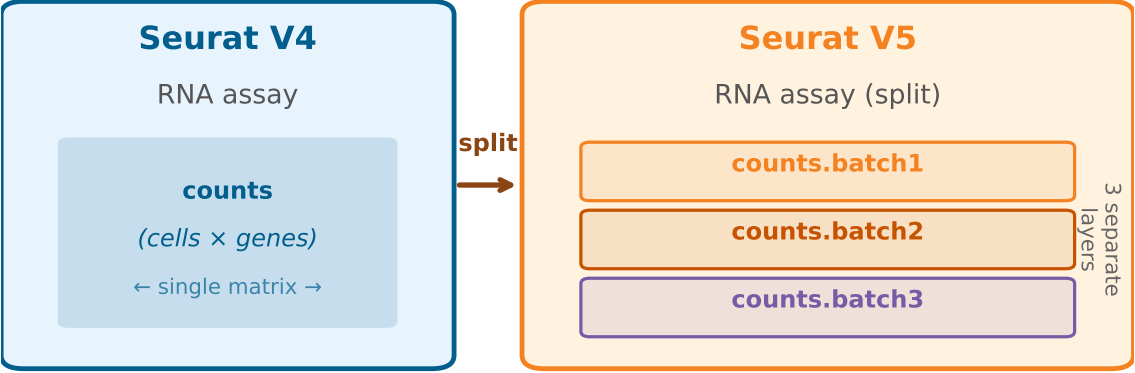


A Seurat V5 Split Layers Problem



⚠ Most conversion tools expect a single counts matrix — split layers cause failures

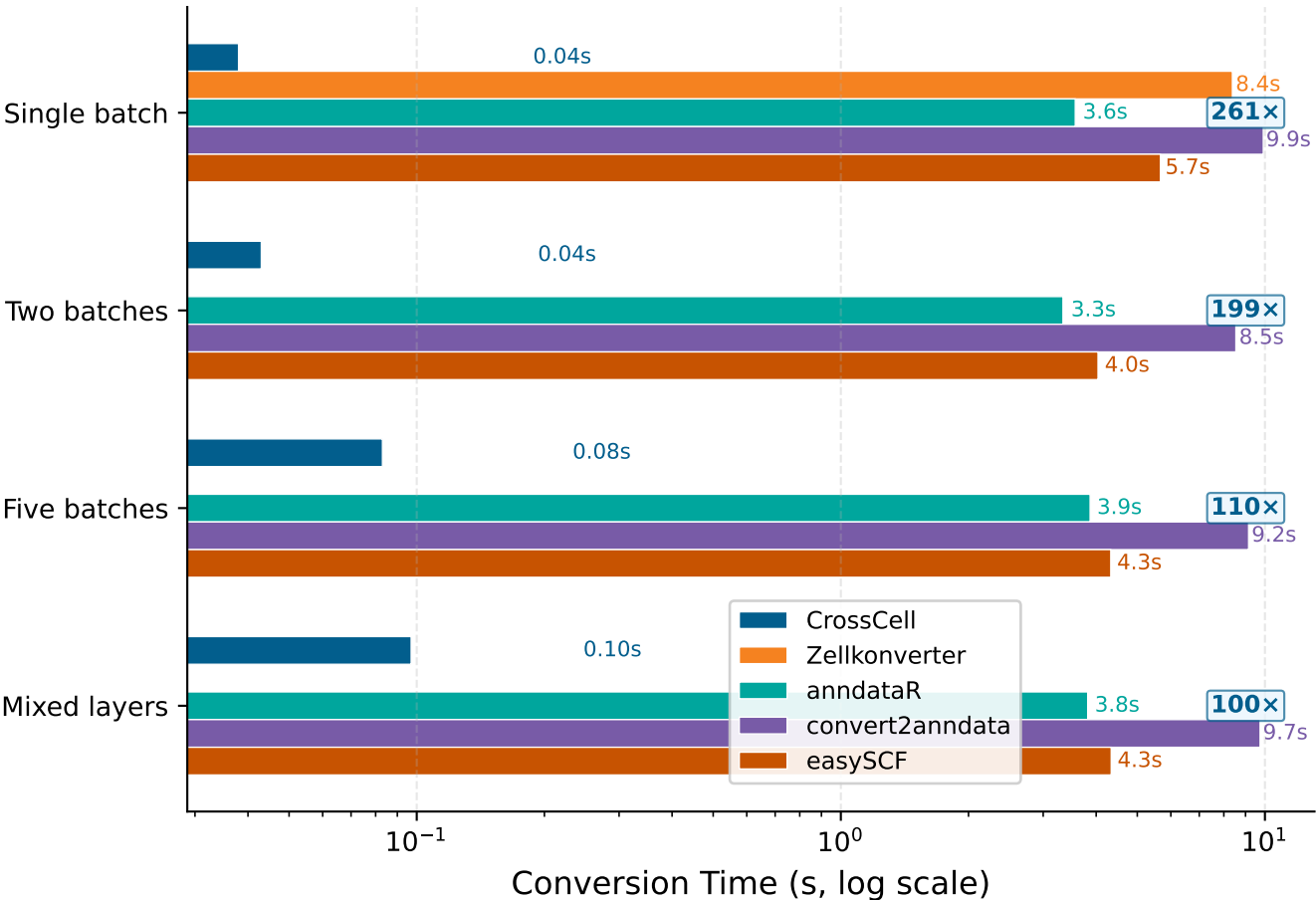
- Test scenarios:**
- Single batch
 - Two batches
 - Five batches
 - Mixed layers
- 1 layer (no split)
 - 2 layers (split by batch)
 - 5 layers (split by batch)
 - split + NormalizeData()

B Compatibility Matrix

	Single batch	Two batches	Five batches	Mixed layers
CrossCell	✓ 0.04s	✓ 0.04s	✓ 0.08s	✓ 0.10s
Zellkonverter	✓ 8.4s	✗	✗	✗
anndataR	✓ 3.6s	✓ 3.3s	✓ 3.9s	✓ 3.8s
convert2anndata	✓ 9.9s	✓ 8.5s	✓ 9.2s	✓ 9.7s
easySCF	✓ 5.7s	✓ 4.0s	✓ 4.3s	✓ 4.3s

CrossCell 4/4 | Zellkonverter 1/4 | anndataR 4/4 | convert2anndata 4/4 | easySCF 4/4

C Conversion Speed (log scale)



D CrossCell Split Layers Pipeline

