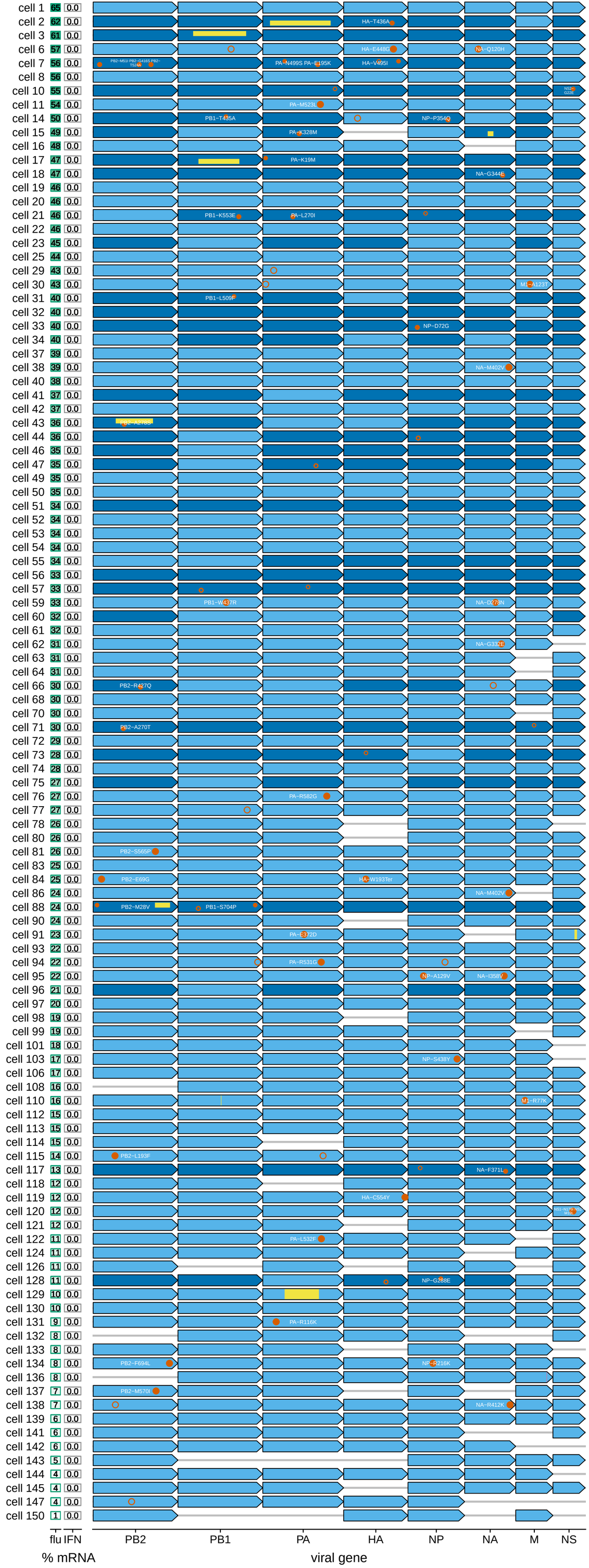

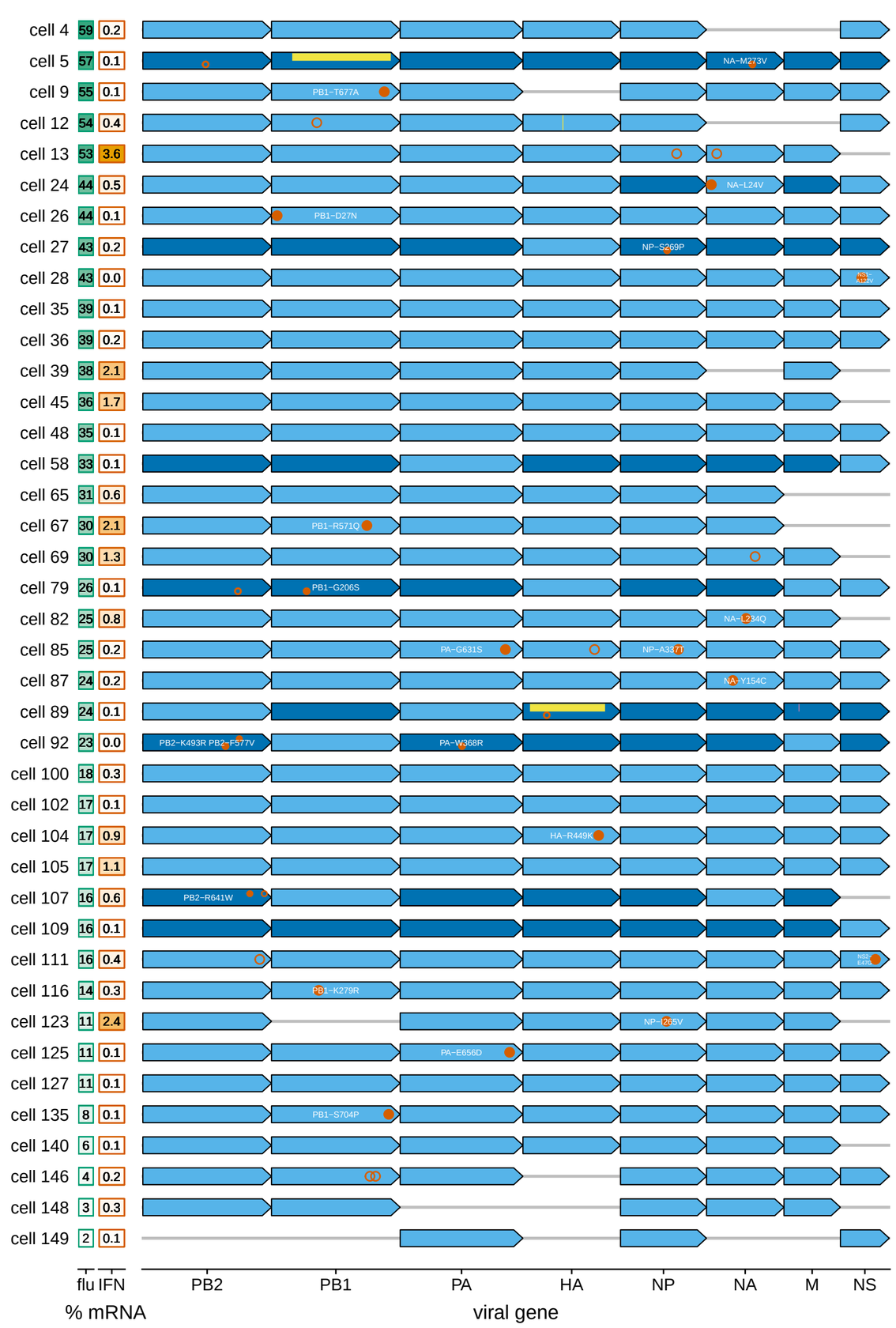

point mutation

- nonsynonymous
- synonymous

deletion

insertion

viral barcodes

- 1
- 2