

TCR sequences and cell labels

Clonotypes (TRA, TRB or paired chains)

Prototypes

TRA and TRB clonotypes

Clonotype (V/J/CDR3) mapping

CDR3

V gene

J gene

chain

Pairwise Clonotype to Prototype similarity score matrix

Alignment of CDR3 sequences,
V and J genes.

Clustering

TRB

epitope1

epitope2

id1

id2

id3

id5

id6

Paired chains

epitope1

id1

id3

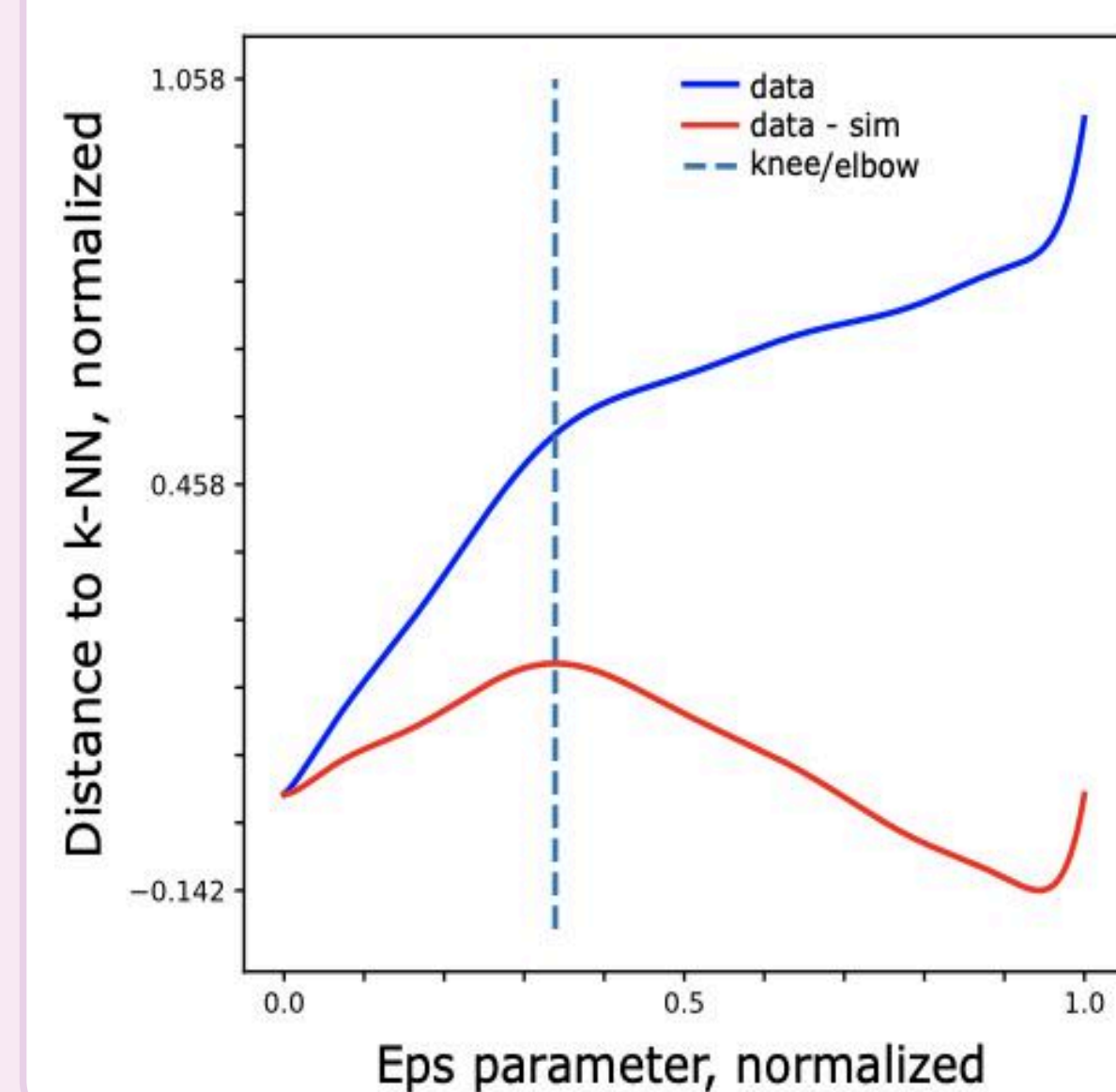
id2

...

...

Optimal clustering parameters

Kneedle method for VDJdb data

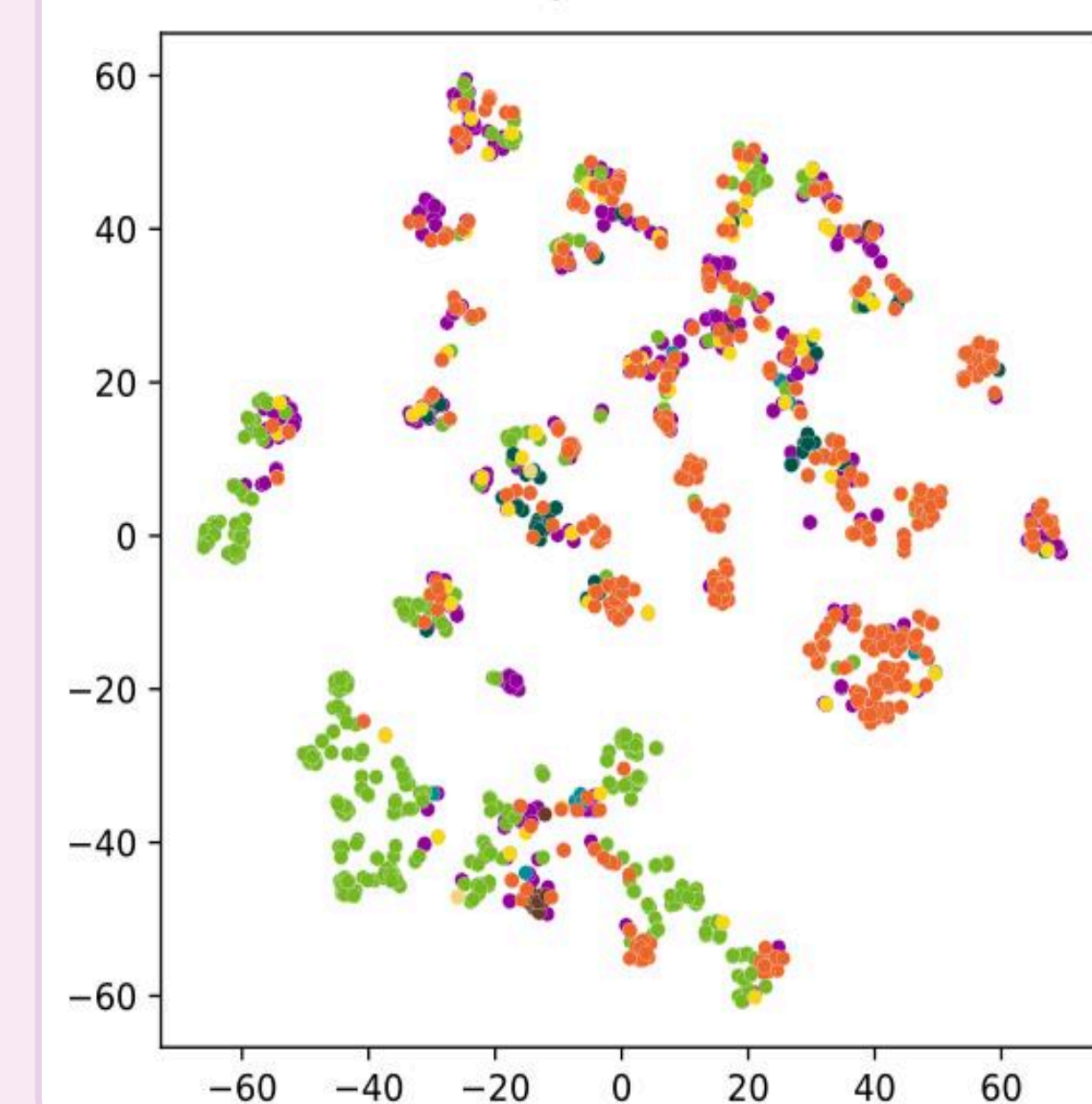


Dimensionality reduction

Classification

Visualisation

10X Genomics public data, donor#2 αβT-cells



best dextramer stain
(molecular tag count)

- AVFDRKSDAK_EBNA-3B_EBV
- ELAGIGILTV_MART-1_Cancer
- FLYALALL_LMP2A_EBV
- GILGFVFTL_Flu-MP_Influenza
- GLCTLVAML_BMLF1_EBV
- IVTDFSVIK_EBNA-3B_EBV
- LLDFVRFMGV_EBNA-3B_EBV
- RAKFKQLL_BZLF1_EBV