a

Mutation processes

C>A
C>G
T>C
T>G
T>A
C>G

Signature probabilities

Mutation signatures

Sample group A
S1
S2
S3

Sample group B
S4
S5
S6

SNV signatures

SV signatures

(b)

Mutation processes

SNV mutation counts

SV mutation counts

(1)MMCTM

Sample clusters

Signature correlations

SNV mutation counts

SV mutation counts

SNV signatures

SV signatures

SNV signature probabilities

SV signature probabilities

Signature correlations

Sample clusters