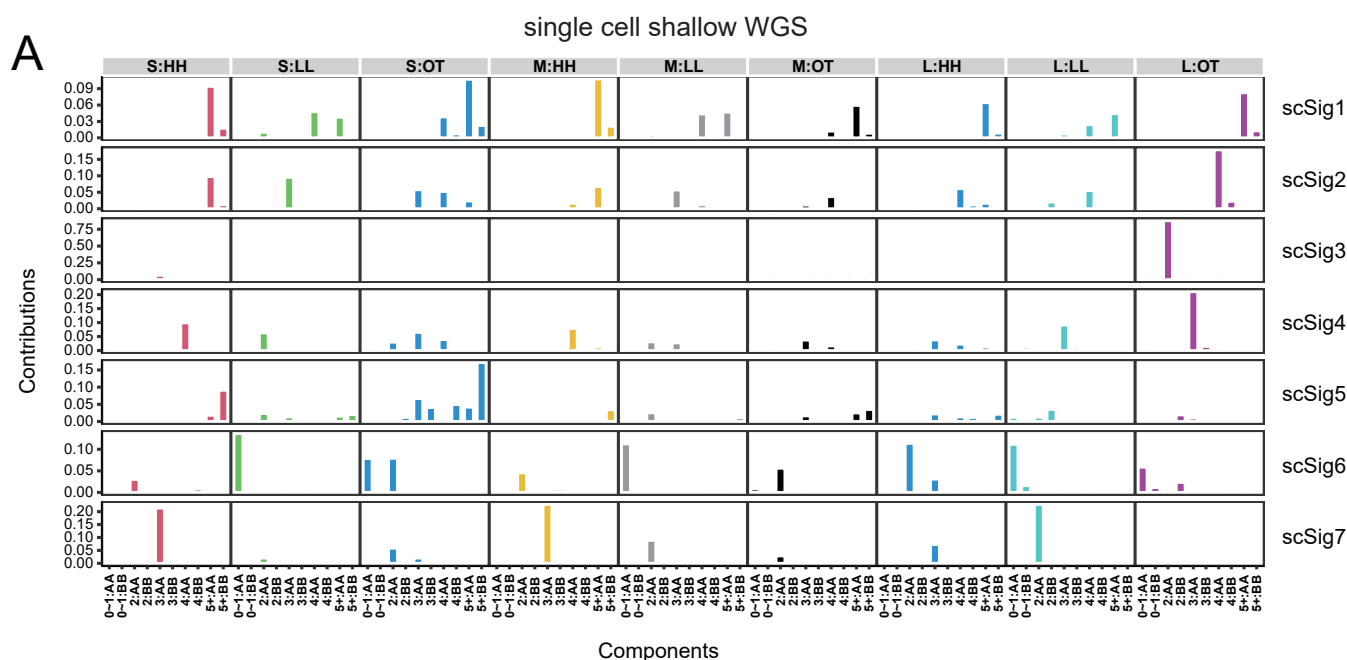


Figure 3



B

Signature	Representative sample profile	Description	Potential mechanism
scSig1		(A) Mainly small and medium-sized DNA segments (0-5Mb); (B) Large sized (>5Mb) CN amplification (mostly 5 copies); (C) The signature is associated with ecDNA.	EcDNA
scSig2		(A) Large sized (>5Mb) CN amplification (mostly 4 copies); (B) Adjacent CN change is within 2 copies; (C) The signature is associated with WGD.	WGD
scSig3		(A) Long DNA segments (>10Mb) without copy number alteration (CN = 2).	Normal genome
scSig4		(A) Mainly large sized (>5Mb) DNA segment (CN = 3) ; (B) Adjacent CN change is within 2;	Triploid chromosome
scSig5		(A) Many localized high CN amplification (copies ≥ 5 , size<5Mb); (B) Adjacent CN change is irregular; (C) The associated with chromothripsis.	Chromothripsis
scSig6		(A) Mainly large sized (>5Mb) DNA segment localized amplification and deletions; (B) The associated with LST (HRD).	LST (HRD)
scSig7		(A) Mainly small DNA segments (0-5Mb) with localized low amplification (CN = 3); (B) Adjacent CN change is within 2;	Unknown

Abbreviations: EcDNA: Extrachromosomal circular DNA; WGD: Whole Genome Duplication; HRD: Homologous Recombination Deficiency; LST: Large-scale State Transitions