

Ref>Alt		Alt															
		AA	AC	AG	AT	CA	CC	CG	CT	GA	GC	GG	GT	TA	TC	TG	TT
Ref	AA	Grey	Grey	Grey	Grey	Grey	Red	Red	Red	Grey	Red	Red	Red	Grey	Red	Red	Red
	AC	Grey	Grey	Grey	Grey	Green	Grey	Green	Green	Green	Grey	Green	Green	Green	Grey	Green	Green
	AG	Grey	Grey	Grey	Grey	Green	Green	Grey	Green	Green	Green	Grey	Green	Green	Green	Grey	Green
	AT	Grey	Grey	Grey	Grey	Yellow	Yellow	Yellow	Grey	Yellow	Yellow	White	Grey	Yellow	White	White	Grey
	CA	Grey	Orange	Orange	Orange	Grey	Grey	Grey	Grey	Grey	Orange	Orange	Orange	Grey	Orange	Orange	Orange
	CC	Purple	Grey	Purple	Purple	Grey	Grey	Grey	Grey	Purple	Grey	Purple	Purple	Purple	Grey	Purple	Purple
	CG	Cyan	Cyan	Grey	Cyan	Grey	Grey	Grey	Grey	Cyan	Cyan	Grey	White	Cyan	White	Grey	White
	GA	Grey	Magenta	Magenta	Magenta	Grey	Magenta	Magenta	Magenta	Grey	Grey	Grey	Grey	Grey	Magenta	Magenta	Magenta
	GC	Light Green	Grey	Light Green	Light Green	Light Green	Grey	Light Green	White	Grey	Grey	Grey	Grey	Light Green	Grey	White	White
	TA	Grey	Pink	Pink	Pink	Grey	Pink	Pink	White	Grey	Pink	White	White	Grey	Grey	Grey	Grey

Table S6. Seventy-eight unique double-substitution types, Related to STAR Mthods. The reference and altered sequences are shown in column and row, respectively. Equivalent reference sequences are combined together, e.g., AA is equivalent to TT. Unqualified double-substitutions are shown in grey, e.g., AA>AC is not a double-substitution. Double-substitutions with different reference sequence are shown in different colours, and the colour code is the same as in Figure 4. White indicates that equivalent ones have been included, e.g., AT>GG is equivalent to AT>CC and has been included, so AT>GG is marked in white.