

Table S1 Enriched biological process terms of gene ontology

Comparison	Regulation	Number of regulated genes	Functional Cluster		Gene ontology class	Number of regulated genes in GO class	Enrichment P-value	Regulated genes in Functional Cluster
			ID	Enrichment score				
B19A6-S-14 vs. B19A6-S-41	Up	2	---	---	---	---	---	---
	Down	11	---	---	---	---	---	---
	Up	12	---	---	---	---	---	---
B19A6-U-13 VS B19A6-U-39	Down	104	1	1.79	sterol metabolic process	5	0.0012	
					cholesterol metabolic process	4	0.0090	Abca1, Nsdhl,
					sterol biosynthetic process	3	0.0140	Aldh1a1, Cat,
					steroid metabolic process	5	0.0170	Ppap2a, Hmgcs1,
					steroid biosynthetic process	3	0.0700	Sc5d
					lipid biosynthetic process	5	0.0970	
			2	1.33	macromolecule catabolic process	10	0.0180	
					protein catabolic process	9	0.0200	
					cellular macromolecule catabolic process	9	0.0320	Cd36, Edem3, Ranbp2,
					proteolysis involved in cellular protein catabolic process	8	0.0440	Adam10, Cast, C3,
					cellular protein catabolic process	8	0.0460	Mmp19, Metap2,
					ubiquitin-dependent protein catabolic process	4	0.0550	Pja2, Pias2, Ubr2,
					modification-dependent macromolecule catabolic process	7	0.0900	Ubr3, Usp32
					modification-dependent protein catabolic process	7	0.0900	
					proteolysis	11	0.0980	
					3	1.32	glycosaminoglycan metabolic process	3
			aminoglycan metabolic process	3			0.0400	Chst12, Dcn, Gns
			polysaccharide metabolic process	3			0.1100	
			4	1.2	mRNA transport	3	0.0550	
					establishment of RNA localization	3	0.0620	
RNA transport	3	0.0620			G3bp2, Ranbp2,			
nucleic acid transport	3	0.0620			Nxf7			
RNA localization	3	0.0630						
nucleobase, nucleoside, nucleotide and nucleic acid transport	3	0.0750						

Table S2. Enriched KEGG pathways

Comparison	Regulation	Number of regulated genes	KEGG pathway	Number of regulated genes in pathway	Enrichment P-value
B19A6-S-14 vs. B19A6-S-41	Up	2	---	---	---
	Down	11	---	---	---
B19A6-U-13 vs. B19A6-U-39	Up	12	---	---	---
	Down	104	Fatty acid metabolism	5	0.00034
			Steroid biosynthesis	3	0.0021
			Drug metabolism - cytochrome P450	4	0.0026
			Fat digestion and absorption	3	0.0037
			Valine, leucine and isoleucine degradation	4	0.0050
			Tryptophan metabolism	3	0.0052

Figure S1

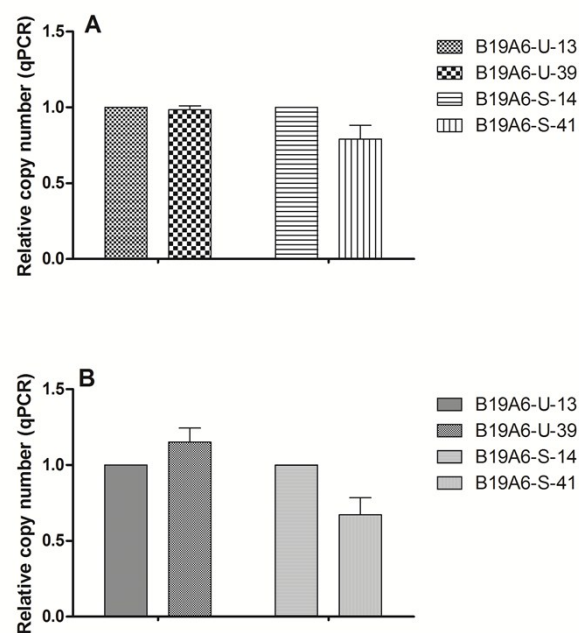


Fig. S1 Relative gene copy number of the unstable cell line (B19A6-U-13 and B19A6-U-39) and the stable cell line (B19A6-S-14 and B19A6-S-41). GAPDH was used for normalization (a).  $\beta$ -actin was used for normalization (b)

Figure S2

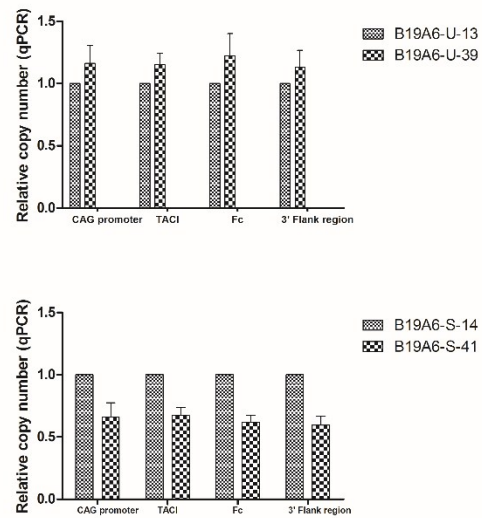


Fig. S2 Changes in of gene copy number of the CAG promoter, TACI, Fc and downstream flanking sequence of Fc in high generation cells relative to low generation cells.  $\beta$  - actin was used for normalization.