

Table 1 | Frequency of aneuploidy

Cell division	Method of detection	Incidence of aneuploidy or chromosome mis-segregation rate*	Refs
<b>Mitotic division</b>			
<i>Saccharomyces cerevisiae</i>	Plasmid and YAC loss	0.001–0.01%	19–22
<i>Schizosaccharomyces pombe</i>	Minichromosome loss	0.01%	137
Human tissue culture cells	FISH	~1%	23,24
Mouse keratinocytes	Single-cell sequencing	2.7%	26
Human keratinocytes	Single-cell sequencing	0%	26
Human and mouse brain	Single-cell sequencing	3–5%	26,34
Human and mouse liver	Single-cell sequencing	~5%	26
Human tissue culture cells displaying CIN	FISH	20–100%	23
Cancer	SKY	>85%	6,138
<b>Meiotic division</b>			
<i>Saccharomyces cerevisiae</i>	YAC mis-segregation	~4%	19
<i>Schizosaccharomyces pombe</i>	Minichromosome loss	~4%	139
<i>Drosophila melanogaster</i>	SKY	~0.1%	140–142
Mouse fertilized eggs	SKY	1–2%	143
Human sperm	SKY	1–4%	144,145
	FISH	1–3%	146
Human oocytes	SKY	10–35%	147,148
	FISH	20–70%	147,148
	CGH	30–75%	149,150
Zygotes (human)	FISH and SKY	5–25%	17
Spontaneous abortions (human)	SKY	35%	17,36,37
Stillbirths (human)	SKY	4%	17,36,37
Newborns (human)	SKY	0.3%	17,36,37

CGH, comparative genomic hybridization; CIN, chromosomal instability; FISH, fluorescence in situ hybridization; SKY, spectral karyotyping; YAC, yeast artificial chromosome. \*Plasmid, minichromosome and YAC loss measure mis-segregation rates; SKY, FISH, CGH and single-cell sequencing measure incidence of aneuploidy.