

Table S1. Known Cell Cycle Dynamics of Cells.

Cells	Organism	DNA Content (Gbp)	G1 (h)	S phase (h)	G2 or (G2/M)	Cell Cycle (h)	Source
C7-10	Mosquito (<i>Aedes albopictus</i>)		2	6	2	10	Gerenday 1996
CHO	Chinese Hamster		7	6.7	2.79 (G2/M)	16	Rex 2002
Myelocyte series	Dog	4.82		~5		16.0-18.0	Cited by Cameron&Greulich 1963
Myeloblast	Dog	4.82		~5		9	Cited by Cameron&Greulich 1963
Erythroblasts Dog Ref1	Dog	4.82	2.5	6	1.5	10	Lala P K 1966
Erythroblasts Dog Ref2	Dog	4.82	2.5	8	1.5	12	Odartchenko N 1963
Early Embryonic Drosophilla	<i>Drosophilla melanogaster</i>	0.24		0.05			Blumenthal 1974
Post MBT Embryonic Drosophilla	<i>Drosophilla melanogaster</i>	0.24		0.6			Blumenthal 1974
Kc Drosophilla	<i>Drosophilla melanogaster</i>	0.24	1.8	10	7.2	18.8	Dolfini 1970
SL-2 Drosophilla	<i>Drosophilla melanogaster</i>	0.24		14.0-16.0	6.4-8.5 (G2/M)		Rizzino 1978
Ventricular Zone	Ferret	4.82		13.3		49.4	Hutner 2015
Inner subventricular zone	Ferret	4.82		7		43	Hutner 2015
Outer subventricular zone	Ferret	4.82		6.7		48.7	Hutner 2015
Cheek pouch	Hamster		120	8.6	2.4	130	Brown J M & R Oliver 1968
Jejunum Hamster	Hamster		6	8	2	16	Lipkin M & Deschner 1968
Carcinoma (cheek pouch)	Hamster		2.4	6	2	10	Reiskin A B & R J Berry 1968
Bone marrow	Human	6.32		6.5			Cited by Cameron&Greulich 1963
Stomach	Human	6.32		18	3		Winawer S J & M Lipkin 1969

Ileum	Human	6.32		11	4		Lipkin M 1965
Colon Human	Human	6.32		13	2	60	Lipkin M 1963
Erythroblasts & Myeloblasts	Human	6.32		12			Strykmans P 1966
HeLaK	Human	9.8	8.9	9.5	3.7	22.6	Cardoso & Bensimon 2016
D283 Medulloblastoma in organ culture	Human			9.8	7.2	29.6	Rubinstein 1987
Malignant glioma	Human			7.0-10.0			Rubinstein 1987
HeLa S3	Human			6		25	Cited by Cameron&Greulich 1963
HeLa	Human			8.5		28	Cited by Cameron&Greulich 1963
Epithelioma	Human		21	12	5	38	Frindel E 1968
Leukemia	Human		36	26	4	66	Saunders E F 1967
Melanoma	Human		37	21	5	63	Shirakawa 1970
Squamous cell carcinoma Human	Human		28.8	12.5	6.9 (G2/M)	50.2	Friedland & Weinstein 1977
MEFs	Mouse	6.34		8			Fereira 2017
mESCs	Mouse	6.34	2	5	2		Fereira 2017
Embryonic Striatum progenitor	Mouse	6.34		5			Bhide 1996
Esophagus	Mouse	6.34		6.9		181	Greulich 1963
Tongue	Mouse	6.34		7		40	Greulich 1963
Duodenum	Mouse	6.34		7.4		18.5	Greulich 1963
Lower Ileum	Mouse	6.34		7.1		16.7	Greulich 1963
Colon	Mouse	6.34		7.5		32.6	Greulich 1963
Primary Spermatocyte AII	Mouse	6.34	7.5	8			Monesi 1962
Primary Spermatocyte AIII	Mouse	6.34	8	7			Monesi 1962
Primary Spermatocyte AIV	Mouse	6.34	9.5	5.0-6.0			Monesi 1962
Primary Spermatocyte Intermediate	Mouse	6.34	8.5	12.5	3.0-4.0		Monesi 1962
Primary Spermatocytes B	Mouse	6.34	10.5	14.5	3.0-4.0		Monesi 1962

Ileum	Mouse	6.34		7.5		18.0-19.0	Cited by Cameron&Greulich 1963
Hair follicle	Mouse	6.34		7.5		12	Cited by Cameron&Greulich 1963
Breast cancer	Mouse	6.34		10		24.0-72.0	Cited by Cameron&Greulich 1963
Tongue	Mouse	6.34		8.5		96	Cited by Cameron&Greulich 1963
Neural tube	Mouse	6.34	3	4	1.5	8.5	Kauffman S L 1966
Primitive ependymal cells	Mouse	6.34	4	5.5	1.5	11	Atlas M & Bond V P 1963
Mesenchymal cells	Mouse	6.34	13	5.5	1.5	20	Atlas M & Bond V P 1963
Primitive erythroblasts	Mouse	6.34		11	1.5		Atlas M & Bond V P 1963
Corneal epithelium	Mouse	6.34		8	5	100	Epifanova O I 1966
Esophagus	Mouse	6.34		2	8	30	Greulich 1964
Forestomach	Mouse	6.34	15	13.5	2	30	Wolfsberg M 1964
Duodenum	Mouse	6.34	3	7.0-11.0	1.3	10.5-13.0	Leshner S 1961
Colon Mouse	Mouse	6.34	16	7	1	24	Lipkin & Quastler 1962
Liver parenchymal cells Mouse	Mouse	6.34		8	4		Fabrikant J I 1967
Bone marrow all cells	Mouse	6.34	2	4.5	2	8.5	Frindel E 1967
Bladder epithelium	Mouse	6.34	10	6	3	19	Levi P E 1969
Testis spermatogonia	Mouse	6.34	7.5-10.5	7.5-18	3.0-8.0	26.0-31.0	Monesi V 1962
Uterine epithelium	Mouse	6.34	32	8	2	42	Epifanova O I 1963
Vaginal epithelium	Mouse	6.34		7.5	2		Thrasher J D 1967
Mammary gland alveoli	Mouse	6.34		9.0-28.0	2		Bresciani F 1965
Epidermis basal cells	Mouse	6.34		7	1	30	Devik F 1962
Ear	Mouse	6.34		30	7		Sherman F G 1961
Hair follicle Mouse	Mouse	6.34	3	7	2	12	Cattaneo S M 1961
Hair follicle Ref 1 Mouse	Mouse	6.34	4.5	6	2	12.5	Griem M L 1966

Adenocarcinoma Mouse	Mouse	6.34	22	10	3	35	Mendelsohn M L 1960
Ehrlich ascite tumor	Mouse	6.34	0.2	13	3	16	Lala P K 1966
Fibrosarcoma NCTC 2472	Mouse	6.34	4.9	10.4	1.7	17	Frindel E 1967
Sarcoma 180	Mouse	6.34	2.6	8.7	2.5	14	Simpson Herren L & HH Lloyd 1970
Neocortical proliferative zone of fetal mouse	Mouse	6.34	9.3	15.1	3.8		Takashai 1993
C2C12	Mouse	11.4	8.8	9.4	3.7	22.6	Cardoso & Bensimon 2016
pmel-1 Mice CD8 T cells	Mouse	6.34	1	4.7	0.3 (G2/M)		Norie Sugitani 2022
pmel-1 Mice Fibroblasts	Mouse	6.34	13	8.2	7.5 (G2/M)		Norie Sugitani 2022
pmel-1 Mice B16 cells	Mouse	6.34	7.1	9.3	0.7 (G2/M)		Norie Sugitani 2022
Ventricular zone Pax6+ Tbr2-	P1 Ferret	4.82	36.1	16.1	2	55.5	Garcia 2016
Ventricular zone Pax6+ Tbr2+	P1 Ferret	4.82	36.3	19.7	2	58.5	Garcia 2016
Inner subventricular zone Pax6+ Tbr2-	P1 Ferret	4.82	37.7	8.6	2.2	49.4	Garcia 2016
Inner subventricular zone Pax6+ Tbr2+	P1 Ferret	4.82	28.6	9.4	2	42	Garcia 2016
Inner subventricular zone Pax6- Tbr2+	P1 Ferret	4.82	39.8	1.9	1.7	45.8	Garcia 2016
Outer subventricular zone Pax6+ Tbr2-	P1 Ferret	4.82	45	22.6	2.1	71.3	Garcia 2016
Outer subventricular zone Pax6+ Tbr2+	P1 Ferret	4.82	32.4	9.7	1.9	45	Garcia 2016
Outer subventricular zone Pax6- Tbr2+	P1 Ferret	4.82	35.6	3.1	1.7	41.3	Garcia 2016
Embryonic midbrain	Rat	6.57		7.5-8.6		15	Faustman 2003

Squamous cell carcinoma Rat	Rat	6.57	15	9	3		Lane 1980
Tracheal Epithelium	Rat	6.57		8.0-9.0	2.5-3.5		Lane 1976
Hepatocyte	Rat	6.57		8			Cited by Cameron&Greulich 1963
Chondrocyte	Rat	6.57		8.5			Cited by Cameron&Greulich 1963
Metaphsis	Rat	6.57		8		36	Cited by Cameron&Greulich 1963
Endostcum	Rat	6.57		8		57	Cited by Cameron&Greulich 1963
Periosteum	Rat	6.57		8		114	Cited by Cameron&Greulich 1963
Jejunum	Rat	6.57	2.5	6.5	1.5	10.5	Cairnie A B 1965
Liver parenchymal cells	Rat	6.57	9	9	3.5	21.5	Post J & J Hoffman 1964
Tracheobronchial epithelium	Rat	6.57		7	3.5		Wells A B 1970
Erythroblasts 6 week	Rat	6.57	2	4.9-5.0	2	9	Roylance P J 1968
Erythroblast 11-13 week	Rat	6.57	1.5	7.5	1.5	10.5	Hanna 1969
Newborn Cartillage cells	Rat	6.57	6.8	11.6	4.6	22	Dixon B 1971
6 day old osteoprogenitor cells	Rat	6.57	14	8	2	24	Young R w 1962
Adenocarcinoma	Rat	6.57	14	9	1	24	Simpson Herren L & HH Lloyd 1970
Adenosarcoma BICR/M1	Rat	6.57	7.5	7.5	2.7	18	Steel G C 1966
Fibrosarcoma RIB5	Rat	6.57	4	8	1.6	13	Denekamp 1970
Rhabomyosarcoma	Rat	6.57	6.2	9.7	2.7	19	Hermens A F & G W Barendsen 1967
Hair follicle	Sheep	5.22	9.4	9.5	1.6	21	Downes A M 1966
Armadillo triticales (Hexaploid)	<i>Triticum + Secale</i> (wheat+rye)		2.77	5.25	2.5	11	Kaltsikes 1972

Rosner triticale (Hexaploid)	<i>Triticum + Secale</i> (wheat+rye)		2.4	6.25	3.1	12	Kaltsikes 1972
A-6 Xenopus somatic cell line 18 degrees	<i>Xenopus laevis</i>	6.2	30.2	29.5	10.1		A. Al-Saleh 1984
A-6 Xenopus somatic cell line 23 degrees	<i>Xenopus laevis</i>	6.2	15.1	16.2	4.3		A. Al-Saleh 1984
A-6 Xenopus somatic cell line 28 degrees	<i>Xenopus laevis</i>	6.2	12	13.8	3.9		A. Al-Saleh 1984
<i>S. cerevisiae</i>	Yeast	0.0121		0.283			Amnon Koren 2010
Arabidopsis	Arabidopsis	0.13		1.9			Arabidopsis Genome Initiative, 2000
Rice cv. Nipponbare Roots	Rice cv. <i>Nipponbare</i>	0.39		1.9			Matsumoto et al., 2005
Rice cv. Nipponbare Culture	Rice cv. <i>Nipponbare</i>	0.39		4.7			Matsumoto et al., 2005
Dicotyledon root tip meristem of diploid cells	<i>Linum usitatissimum</i>	1.37		4.1		11.2	Evans & Rees 1971
Maize cv. B73	Maize cv. B73	2.3		3.9			Schnable et al., 2009
Dicotyledon root tip meristem of diploid cells	<i>Lycopersicum esculentum</i>	3.81		4.3		10.6	Evans & Rees 1971
Dicotyledon root tip meristem of diploid cells	<i>Crepis capillaris</i>	4.11		3.25		10.8	Evans & Rees 1971
Barley cv. Morex	Barley cv. Morex	5.1		2.7			Mayer et al., 2012
Dicotyledon root tip meristem of diploid cells	<i>Lathyrus angulatus</i>	8.70	4.4	3.9		12.25	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>Lolium perenne</i>	9.68	0.5	4.2		8.6	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>Zea mays</i>	10.8	0.5	4.25		10.5	Evans & Rees 1971
Dicotyledon root tip meristem of diploid cells	<i>Lathyrus articulatus</i>	12.1	3.9	4.3		14.25	Evans & Rees 1971

Wheat cv. Chinese Spring	Wheat cv. Chinese Spring	17		2.9			Brenchley et al., 2012
Dicotyledon root tip meristem of diploid cells	<i>Lathyrus tingitanus</i>	17.7	6.3	5.3		16.75	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>Secale cereale</i>	18.5	1	6		11.7	Evans & Rees 1971
Dicotyledon root tip meristem of diploid cells	<i>Lathyrus hirsutus</i>	19.7	7.8	5		18	Evans & Rees 1971
Dicotyledon root tip meristem of diploid cells	<i>Nigella damascena</i>	20.6	1.5	10.5		16.5	Evans & Rees 1971
Dicotyledon root tip meristem of diploid cells	<i>Vicia faba</i>	23.4	4.9	7.3		19.3	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>Allium fistulosum</i>	25.7	<0.5	7.1		15.1	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>A. cepa</i> * <i>A. fistulosum</i>	29.2		8.6		16.6	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>Allium cepa</i>	32.76	<0.5	9.6		17.8	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>Tradescantia paludosa</i>	37.9		10.8		20	Evans & Rees 1971
Monocotyledon root tip meristem of diploid cells	<i>Hyacinthus orientalis</i>	48.6	0.8	13.6		24	Evans & Rees 1971
HCT-116	Human		5.4	6.8	3.8	16	Fereira 2017
L-strain cells	L-strain cells			6.0-7.0		20	Cited by Cameron&Greulich 1963
Hamster cells	Hamster cells			6		14	Cited by Cameron&Greulich 1963
Ascites tumor cells	Ascites tumor cells			7.5		18	Cited by Cameron&Greulich 1963

Liver cells	Liver cells			8		31	Cited by Cameron&Greulich 1963
L-5178Y ascites	L-5178Y ascites			6.9-7.4			Cited by Cameron&Greulich 1963
BNL tumor	BNL tumor			8		16	Cited by Cameron&Greulich 1963
<i>Tradescantia paludosa</i>	<i>Tradescantia paludosa</i> 2N			10.7			Troy & Wimber 1969
<i>Tradescantia paludosa</i>	<i>Tradescantia paludosa</i> 24N			10.4			Troy & Wimber 1969
<i>Ornithogatum virens</i>	<i>Ornithogatum virens</i> 2N			7.9			Troy & Wimber 1969
<i>Ornithogatum virens</i>	<i>Ornithogatum virens</i> 4N			7.9			Troy & Wimber 1969
<i>Cymbidium</i>	<i>Cymbidium</i> 2N			7.1			Troy & Wimber 1969
<i>Cymbidium</i>	<i>Cymbidium</i> 4N			7.7			Troy & Wimber 1969
<i>Lycopersicum esculentum</i>	<i>Lycopersicum esculentum</i> 2N			7.2			Troy & Wimber 1969
<i>Lycopersicum esculentum</i>	<i>Lycopersicum esculentum</i> 4N			7.6			Troy & Wimber 1969
<i>Chrysanthemum cozymbosum</i>	<i>Chrysanthemum</i> <i>cozymbosum</i>			5.9			Troy & Wimber 1969
<i>Chrysanthemum yezoense</i>	<i>Chrysanthemum yezoense</i>			4.8			Troy & Wimber 1969
<i>Chrysanthemum arelieum</i>	<i>Chrysanthemum arelieum</i>			5.1			Troy & Wimber 1969
<i>Chrysanthemum lacustre</i>	<i>Chrysanthemum lacustre</i>			6.3			Troy & Wimber 1969
<i>Caulobacter crescentus</i>	<i>Caulobacter crescentus</i>		0.5	1.3	0.3	2.5	Laub 2000
<i>Escheria coli</i> (Fast Growth)	<i>Escheria coli</i>	0.0046		0.6	0.3		Helmstetter &Cooper 1968
<i>Bacillus subtilis</i> (37oC)	<i>Bacillus subtilis</i>	0.00421		0.9			M Sharpe 1998
<i>S. solfataricus</i>	<i>S. solfataricus</i>	0.0031		2.6	4.25	7	Bernander 1997
<i>S.acidocaldarius</i>	<i>S.acidocaldarius</i>	0.0027		0.9-1.4	2.1-2.55	3.55	Bernander 1997
<i>Phaeodactylum tricornutum</i>	<i>Phaeodactylum</i> <i>tricornutum</i>	0.0274	9.4	1.4	7.6	18.7	Brzezinski 1990

<i>Cylindrotheca fusiformis</i>	<i>Cylindrotheca fusiformis</i>		9.4	1.1	4	16.2	Brzezinski 1990
<i>Thalassiosira weissflogii</i>	<i>Thalassiosira weissflogii</i>	16.87	4.5	3.6	2.1	13.3	Brzezinski 1990
<i>Thalassiosira pseudonana</i>	<i>Thalassiosira pseudonana</i>	0.0324	6	0.3	3.1	9.8	Brzezinski 1990
<i>Chaetoceros muellerii</i> var. <i>subsalsum</i>	<i>Chaetoceros muellerii</i> var. <i>subsalsum</i>		12.9	0.9	1.9	16.2	Brzezinski 1990
<i>Minutocellus polymorphus</i>	<i>Minutocellus polymorphus</i>	1.86	10.6	1.3	0.5	13.9	Brzezinski 1990
<i>Chaetoceros simplex</i>	<i>Chaetoceros simplex</i>		7.8	0.8	0.3	9.6	Brzezinski 1990
		Source					
Dog Genome Size		Hoepfner, M. P 2014					
<i>Drosophila melanogaster</i> Genome Size		Adams 2000					
Human Genome Size		Piovesan 2019 - average of male and female					
Sheep Genome Size		Yu Jiang 2014					
<i>Xenopus laevis</i> Genome Size		U Hellsten 2010					
<i>S. cerevisiae</i> Genome Size		Genome size - Belda 2019					
<i>Escheria coli</i> Genome Size		Blattner 1997					
<i>Thalassiosira weissflogii</i> Genome Size		Connolly 2008					
<i>Minutocellus polymorphus</i> Genome Size		Connolly 2008					
<i>Arabidopsis</i> Genome Size		Arabidopsis Genome Initiative, 2000					
Conversions from picogram to Gbp		Dolezel 2003					