Table 13.1. Kinetic parameters in normal, hyperplastic, and neoplastic squamous epithelia during carcinogenesis

	I_S (%)	I_M (%)	k_B (cells/%/h)	I_P	T_C (h)	t_{G_1} (h)	t_S (h)	t_{G_2} (h)	t_M (h)	t_D (d)	ϕ (%)
(A) Normal epithelium											
(i) Hamster cheek pouch											
Reiskin and Mendelsohn (1964)	7.2	1.7	–	–	142[5]	128[5]	10.2	1.6	2.6	–	–
Reiskin and Berry (1968)	6.0	1.1	–	1.0[1]	155[5]	142[5]	9.3	1.1	2.1	–	–
Thilagarathram and Main (1972)	6.1	1.1	–	–	164[5]	150[5]	10.0	1.9	1.8[3]	–	–
Izquierdo (1977)	–	–	–	–	–	–	9.0	2.5	–	–	–
Nagamine (1978)	4.0	–	–	0.73	92[6]	82[6]	6.9[6]	3.2[4]	–	–	–
(ii) Mouse epidermis											
Fukada *et al.*. (1978)	–	–	–	0.34[1]	–	–	–	–	–	–	–
Chopra and Forbes (1974)	6.7	–	–	–	95[2,5]	–	6.2[2]	–	–	–	–
(B) Hyperplastic epithelium											
(i) Hamster cheek pouch											
Reiskin and Mendelsohn (1964)	24.6	5.3	–	–	42[5]	29[5]	10.2	2.2	0.6	–	–
Thilagarathram and Main (1972)	11.0	2.0	1.3[3]	–	91[5]	81[5]	8.33	–	1.6[3]	–	–
Nagamine (1978)	24.2	–	–	3.0	61[6]	51[6]	6.6	3.0[4]		–	–
(ii) Mouse epidermis											
Fukada *et al.* (1978)	–	–	–	1.0[1]	15–39[1]	–	6–9[1]	–	–	–	–
Chopra and Forbes (1974)	10.2	–	–	–	43[2,5]	–	4.5[2]	–	–	–	–
(C) 'Preneoplastic epithelium'											
(i) Hamster cheek pouch											
Reiskin and Berry (1968)	15.7	1.8	–	–	61[5]	47[5]	10.4	2.0	1.2	–	–
Thilagarathram and Main (1972)	–	–	–	–	23[6]	11.9[6]	8.2	1.7	0.9[3]	–	–
(D) Neoplastic epithelium (tumour)											
(i) Hamster cheek pouch											
Reiskin and Mendelsohn (1964)	29.5	7.0	–	–	17.6[6]	8.6[6]	6.2	2.2	0.5	–	–
Reiskin and Berry (1968)	24.9	1.6	–	0.6	22[6]	11[6]	6.5	2	0.56	4.7	93
Brown and Berry (1969)	–	–	–	–	10.7[6]	2.8[6]	5.9	1.6	0.4	–	–
Thilagarathram and Main (1972)	21.7	2.04	2.6[3]	–	15[6]	7.1[6]	6.2	1.4	0.7[3]	–	–
Izquierdo (1977)	12.6–20.4	1.1–2.6	–	–	–	–	6	2.5	–	–	–
Nagamine (1978)	33.1	–	–	1.7	17.2[6]	8[6]	6.4	2.2[4]	–	9–10	–
(ii) Mouse epidermis											
Fukada *et al.* (1978)	–	–	–	1.0[1]	14–58[1]	–	7–17[1]	–	–	–	–
Chopra and Forbes (1974)	19	–	–	–	16[2,5]	–	3.0[2]	–	–	–	–
(iii) Mouse squamous forestomach											
Frankfurt (1966)	29–40	–	–	–	8–12		3.6–5	2.2–2.5	–	–	–

All cell cycle phase durations are FLM derived except those marked: (1) continuous labelling method; (2) double labelling method; (3) metaphase arrest method; (4) indicates those measurements which are t_2, i.e. $(t_{G_2} + \frac{1}{2}t_M)$ rather than t_{G_2}; (5) stage-duration calculation; (6) direct measurement.