TABLE 2.6

Osmotic Permeabilities (L_p) and Diffusive Permeabilities (P_w) Compared for a Range of Cells and Tissues and Artificial Systems[a]

System	L_p	P_w	Ratio	Ref.[c]
Artificial lipid bilayers	20–50	1–11, but underestimated	Probably unity	(*i*)
Bilayer with gramicidin channel added	9.6[b]	1.8[b]	5.3	(*ii*)
Red blood cells: a	200	20–40	5–10	(*iii*)
Inhibited by mercurials: b	12–18	12–18	1	(*iii*)
Through channels: a − b	185	10–20	9–18	(*iii*)
Proximal tubule cells, rabbit kidney				
Uninhibited	400	22	18	(*iv*)
Inhibited by mercurials	32	10	3.2	(*iv*)
Toad urinary bladder				
Unstimulated: a	2–4	0.7	3–6	(*v*)
Stimulated with antidiuretic hormone: b	41	1.9	22	(*v*)
Through channels: a − b	39	2	16–20	(*v*)

[a] Values expressed as 10^4 cm sec^{-1}, except for gramicidin channel.

[b] Units here are per channel, in cm^3 sec^{-1}.

[c] Key to References: (*i*) R. Fettiplace and D. A. Haydon, *Physiol. Rev.* **60,** 510–550 (1980); (*ii*) A. Finkelstein, *Curr Topics Membr Transp.* **21,** 295–308 (1984); (*iii*) W. D. Stein, (1984) "Transport and Diffusion across Cell Membranes," pp. 150–151 from various authors. Academic Press, Orlando, Florida; (*iv*) P. Carpi-Medina, V. León, J. Espidel, and G. Whittembury, *J. Membr. Biol.* **104,** 35–43, (1988); and (*v*) S. D. Levine, M. Jacoby, and A. Finkelstein, *J. Gen. Physiol.* **83,** 543–561 (1984).