Table 1. Morphometric and physical parameters for acini in various mammals

	Species				
				Human	
Parameter	Mouse	Rat	Rabbit	Acinus	1/8 subacinus
Acinus volume, V_a, 10^{-3}·cm^3	0.41	1.70	3.40	187	23.4
Acinus surface S_a, cm^2	0.42	1.21	1.65	69	8.63
Average membrane thickness τ, 10^{-4} cm	0.60	0.75	1.0	1.1	1.1
Unscreened length Λ, cm	15.2	18.9	25.3	27.8	27.8
Acinus size $L_a = V_a^{1/3}$, cm	0.074	0.119	0.150	0.572	0.286
Acinus perimeter $L_p \approx S_a/L_a$, cm	5.6	10.2	11.0	120.6	30
Alveolus size $\ell \approx 4\ V_a/S_a$, 10^{-4} cm	39	56	82	162	162
Reduced perimeter L_p/ℓ	717	910	670	7,600	925
Λ/L_p	2.7	1.85	2.3		0.93
Hilbert acinus efficiency (generation 4)	0.21	0.17	0.19		0.11

Data are taken from refs. 7, 11, and 12.

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