

Table IV. Transit Time, pH, and Enzyme Activity of the Gastrointestinal Tract of the Mouse, Rat, Rabbit, Monkey, Dog, and Human

	Mouse (0.02 kg)	Rat (0.25 kg)	Rabbit (2.5 kg)	Monkey (5 kg)	Dog (10 kg)	Human (70 kg)
Transit time (min)						
Stomach	—	—	—	—	96 <sup>a</sup>	78 <sup>a</sup>
Small intestine	—	88 <sup>b</sup>	—	—	110 <sup>c</sup>	238 <sup>c</sup>
Whole gut	—	—	—	—	770	2350 <sup>d</sup>
pH (fed) <sup>e</sup>						
Stomach						
Anterior	4.5	5.0	1.9	4.8	5.5	—
Posterior	3.1	3.8	1.9	2.8	3.4	5.0 <sup>f</sup>
Small intestine						
Beginning	—	6.5	6.0	5.6	6.2	5.4 <sup>f</sup>
End	—	7.1	8.0	6.0	7.5	7.5 <sup>g</sup>
Cecum	—	6.8	6.6	5.0	6.4	6.0 <sup>h</sup>
Colon	—	6.6	7.2	5.1	6.5	7.5 <sup>h</sup>
Feces	—	6.9	7.2	5.5	6.2	—
β-Glucuronidase activity (nmol substrate/ hr/g contents) <sup>i</sup>						
Proximal small intestine	1200	304	2.4	—	—	0.02
Distal small intestine	5015	1341	45.4	—	—	0.9

<sup>a</sup> Y. Ueda. *Proc. 2nd Symp. Clin. Pharm.*, Tokyo, 1988, pp. 12–21.

<sup>b</sup> N. J. Brown. *Gut* 28:849–854 (1987).

<sup>c</sup> J. B. Dressman. *Pharm. Res.* 3:123–131 (1986).

<sup>d</sup> J. C. Mathers and J. S. Blake. *Proc. Nutr. Soc.* 42:111A (1983).

<sup>e</sup> H. W. Smith. *J. Pathol. Bacteriol.* 89:95–122 (1965).

<sup>f</sup> J. B. Dressman. *Pharm. Res.* 7:756–761 (1990).

<sup>g</sup> D. F. Evans. *Gut* 29:1035–1041 (1988).

<sup>h</sup> R. L. Bown. *Gut* 15:999–1004 (1974).

<sup>i</sup> G. M. Hawksworth, B. S. Draser, and M. J. Hill. *J. Med. Microbiol.* 4:451 (1971).