Animal Ventilation Table

Tidal Volume (V_t) in mL

$V_t = 6.2 * M_b^{1.01}$

Respiration rate (RR) in breaths per minute (BrPM)

$RR = 53.5 * M_b^{-0.26}$

Animal weight (M_b) in Kg

SPECIES	BODY WEIGHT (M_b in Kg)	MEAN WEIGHT (Kg)	LOW WEIGHT (Kg)	HIGH WEIGHT (Kg)	MEAN TIDAL VOLUME (V_t in mL)	LOW V_t (mL)	HIGH V_t (mL)	MEAN RESPIRATION RATE (RR in BrPM)	LOW RR (BrPM)	HIGH RR (BrPM)
Mice (adult)	0.02-0.05	**0.035**	0.02	0.05	**0.209**	0.119	0.301	**128**	148	117
Rat (adult)	0.07-0.23	**0.15**	0.07	0.23	**0.912**	0.423	1.405	**88**	106	78
Rabbit (adult)	3-5	**4**	3	5	**25.1**	18.8	31.5	**37**	40	35
Guinea pig (adult)	0.33-0.53	**0.43**	0.33	0.53	**2.64**	2.02	3.3	**67**	71	63
Dog (beagle)	9-19	**14**	9	19	**89.1**	57	121	**27**	30	25
Cat (adult)	2.1-4.5	**3.3**	2.1	4.5	**20.7**	13	28	**39**	44	36
Pig (adult)	15-125	**82**	15	125	**531**	96	813	**17**	26	15
Sheep (adult)	26-54	**40**	26	54	**257**	167	348	**21**	23	19
Goat (adult)	6-36	**21**	6	36	**134**	38	231	**24**	34	21

Tarnavski O, McMullen JR, Schinke M, Nie Q, Kong S, Izumo S. "Mouse cardiac surgery: comprehensive techniques for the generation of mouse models of human diseases and their application for genomic studies." Physiol Genomics. 2004 Feb 13; 16(3): 349-60.

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