## KN-590 Rat model for training the animal experimental technique



## **NATSUME RAT**



# Together with the Future of Life Science

"The concept of 3Rs\*1" proposed by Russell and Burch in 1959 is currently the international principle on performing animal experiments, and this is an essential principle to follow in the life sciences.

\*1Replacement, Reduction, and Refinement

Natsume Seisakusho Co.,Ltd. developed and now launch the Natsume Rat,a silicon manneguin for training animal experimental techniques, taking account of how to address the principle of the 3Rs as a manufacturer of animal experiment devices.

We hope to contribute to a reduction in the number of experimental animals used, and Natsume Rat is used by those concerned as much as possible as practical efforts for alternatives to animal experiments in medical, pharmaceutical, and veterinary education and the education for sophisticating animal experiment techniques.



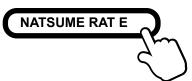
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#### **KN-590**

### Rat model for training the animal experimental technique

## **NATSUME RAT**

#### Specification

 $\begin{array}{ll} \text{Length of body} & 190\text{mm } (71/2") \\ \text{Length of tail} & 180\text{mm } (7") \end{array}$ 

Sex Male

Body weight about 200 g Material Urethane

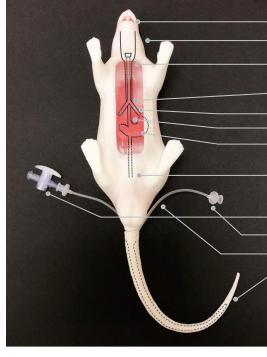
#### Component parts

 $\begin{array}{lll} \text{Main Body of rat model} & \times & 1 \\ \text{Tail} & & \times & 2 \\ \text{Instruction manual} & & \times & 1 \\ \end{array}$ 

#### Related Products (optional)

Simulated blood (50 ml)  $\times$  1 Spare tail  $\times$  1

#### Structure



- ① Teeth
- ② Skin
- 3 Trachea
- 4 Bronchial bifurcation
- ⑤ Bronchus
- ⑥ Esophagus
- Stomach
   Stomach
- ® Drainage port
- 9 Simulated blood cock
- Inlet of simulated blood
- 1 Tail vein blood vessel tube
- 12 Tail

#### Trainable procedures



Retention / Holding



Oral administration



Endotracheal intubation



Tail vein injection Blood collection through tail vein

- Please, treat Natsume Rat carefully like a living body. Unnatural handling may cause damage.
   Refer to the instruction manual for the precautions.
- Please, be aware that the appearance and specifications may change for product improvement without a preliminary announcement.