

NUDE RAT

Nomenclature: Crl:NIH-Foxn1^{nu}

Common Name: Nude Rat

Strain Origin: The NIH nude rat was developed in 1979-1980 at the NIH through a series of matings in which the Rowett nude gene was added and backcrossed into eight inbred rat strains: BN/SsN, MR/N, BUF/N, WN/N, ACI/N, WKY/N, M520/N, and F344/N. This rat was received from the National Institute of Health Animal Genetic Resources and cesarean rederived by Charles River Laboratories in 2001.

Strain characteristics:

- Phenotype: black, black & white, and occasionally albino. During their life span, some animals exhibit intermittent periods of hair growth and loss.
- The athymic nude rat is T-cell deficient and shows depleted cell populations in the thymus-dependent areas of peripheral lymphoid organs. Although it lacks T cells, the nude rat has a normal complement of bone-marrow-dependent B cells.

Product Information:

- Breeding method: outbred, monogamous production colony (♂ rnu/rnu x ♀ rnu/+)
- Litter size: 10-12
- Gestation period: 21-23 days
- Weaning age: 21 days

Applications:

Tumor Studies

- Skin
- Central Nervous System

Drug Responses

- Skin Cancer
- Wound Healing

Orthopedic Research

References

1. Brooks C.G., Webb P.J., and Robins R.A. 1980. Studies on the immunobiology of rnu/rnu "nude" rats with congenital aplasia of the thymus. *Eur. J. Immunol.* **10** (1): 58-65.
2. Cash J.M., Remmers E.F., Goldmuntz E.A., Crofford L.J., Zha H., Hansen C.T., and Wilder R.L. 1993. Genetic mapping of the athymic nude (RNU) locus in the rat to a region on chromosome 10. *Mamm. Genome* **4** (1): 37-42.
3. Davies G., Grant A.G., Duke D., and Hermon-Taylor J. 1983. Antibody response of nude (RNU/RNU) and hairy (RNU/+) rats to circulating cell surface components from human pancreatic cancer xenografts. *Br. J. Cancer* **48** (2): 239-45.
4. Nielsen B., Lillevang S., Salomon S., Steinbruchel D.A., Kemp E. 1994. Hamster hearts transplanted to normal Lewis rats and RNU/RNU rats ("nude rats") are rejected at the same tempo but by different mechanisms. *Transplant Proc.* **26** (3): 1189-90.
5. Xia G., Ji P., Rutgeerts O., Vandeputte M., and Waer M. 2000. Immunomodulatory effects of pretransplant donor blood transfusion on T-cell-independent xenoreactive immunity. *Transplantation* **69** (8): 695-704.



Customer Service: 1.800.LAB.RATS
 Technical Services: 1.800.338.9680
www.criver.com