

# New Zealand White

HSDHRA:(NZW) SPF

SCIENTIFIC NAME	Oryctolagus cuniculus
ORDER	Lagomorpha
CLASS	Mammalia
STRAIN	New Zealand White
STRAIN DESIGNATION	HsdHra:(NZW) SPF

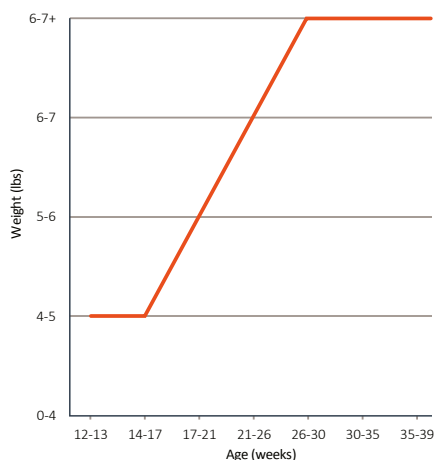


## CHARACTERISTICS

New Zealand White rabbits are very docile with all white coats. This stock possesses the Albino gene for coat color..

- **Body temperature**  
100°–103° F
- **Respiration rate**  
35–65 BPM
- **Weight: newborn**  
50–60 gm
- **Gestation period**  
31 days
- **Average litter size**  
7–10
- **Age at weaning**  
6 weeks
- **Photo period (light/dark)**  
14/10
- **Water consumption**  
(automated watering system)  
150 mL per day
- **Food consumption**  
60 gm 6–8 weeks  
125 gm over 8 weeks
- **Sexual maturity Male:**  
6–9 months
- **Sexual maturity Female:**  
5–8 months
- **Breeding life Male:**  
24–30 months
- **Breeding life Female:**  
24–30 months
- **Identification methods**  
Ear tags, tattoos, implants

**Figure 1: Age and weight chart**



Weights may fluctuate slightly from the growth chart depending on the time of year.

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## RABBIT ENRICHMENT

Our commitment to animal welfare including enrichment is a daily commitment. Our rabbit enrichment program includes:

- Music in each room for 24 hours daily
- Each animal is handled twice per week, beginning at 4 days of age
- Group housing up to 4-1/2 -5 months of age
- Dumbbells, chains, bells and other 'toys' are supplied for continuous enrichment
- Resting pads are provided in each cage as needed
- Flat, perforated cage bottoms

## RESEARCH USE AND RELATED PUBLICATIONS

New Zealand White rabbits are very docile. This outbred stock is used in dermatological, ophthalmological and toxicological studies, especially reproductive toxicology.

## ADDITIONAL SERVICE OFFERINGS

- Ocular screening solutions – Pre-shipment eye screening solutions identify optimal models for your ocular studies
- Social housing solutions – Social housing capabilities promote the compatibility and sociability of your rabbits (up to 2 kg)
- We're able to offer single or double vascular catheterizations in our rabbit models to enable efficient and fast study start
- Pre-implanted telemetry solutions – Partnered with Data Sciences International, Inc. (DSI), we're able to offer large models that are pre-implanted with telemetry devices to enable efficient and fast study start
- Health monitoring program – At least once per month, a minimum of four representative rabbits from each production building are sent to a third-party laboratory for a complete health assessment

## Research Use and Publications

Below is a sampling of references for this model. Additional references can be found on our website.

### PHARMACOLOGY REFERENCES

Comer, Jason E; Ray, Bryan D; Henning, Lisa N; Stark, Gregory V; Barnewall, Roy E; Mott, Jason M; Meister, Gabriel T., *Characterization of a therapeutic model of inhalational anthrax using an increase in body temperature in New Zealand White Rabbits as a trigger for treatment. Clinical and vaccine immunology, CVI Vol.19, 2012*

Petrakis, Vidmantas; Petrakiene, Ruta; Naing, Ethan; Aung, Thein; Thi, Wai Phyo; Kavaliauskas, Povilas; Win Maung, Bo Bo; Michel, Adam O; Ricart Arbona, Rodolfo J; DeRyke, Andrew C; Culshaw, Darren L; Nicolau, David P; Satlin, Michael J; Walsh, Thomas J., *Ceftolozane-Tazobactam in the Treatment of Experimental Pseudomonas aeruginosa Pneumonia in Persistently Neutropenic Rabbits: Impact on Strains with Genetically Defined Mechanisms of Resistance., Antimicrobial agents and chemotherapy Vol.63, 2019*

Kammanadiminti, Srinivas; Patnaikuni, Ravi Kumar; Comer, Jason; Meister, Gabriel; Sinclair, Chris; Kodihalli, Shantha., *Combination therapy with antibiotics and anthrax immune globulin intravenous (AIGIV) is potentially more effective than antibiotics alone in rabbit model of inhalational anthrax., PLoS one Vol.9, 2014*

Yamamoto, Brent J; Shadiack, Annette M; Carpenter, Sarah; Sanford, Daniel; Henning, Lisa N; O'Connor, Edward; Gonzales, Nestor; Mondick, John; French, Jonathan; Stark, Gregory V; Fisher, Alan C; Casey, Leslie S; Serbina, Natalya V, *Efficacy Projection of Obiltoximab for Treatment of Inhalational Anthrax across a Range of Disease Severity., Antimicrobial agents and chemotherapy Vol.60, 2016*

Gutting, Bradford W; Nichols, Tonya L; Channel, Stephen R; Gearhart, Jeffery M; Andrews, George A; Berger, Alan E; Mackie, Ryan S; Watson, Brent J; Taft, Sarah C; Overheim, Katie A; Sherwood, Robert L., *Inhalational anthrax (Ames aerosol) in naïve and vaccinated New Zealand rabbits: characterizing the spread of bacteria from lung deposition to bacteremia, Frontiers in cellular and infection microbiology Vol.2, 2012*

Ibarra, R; Dazard, J-E; Sandlers, Y; Rehman, F; Abbas, R; Kombu, R; Zhang, G-F; Brunengraber, H; Sanabria, J., *Metabolomic Analysis of Liver Tissue from the VX2 Rabbit Model of Secondary Liver Tumors., HPB surgery : a world journal of hepatic, pancreatic and biliary surgery Vol.2014, 2014*

Shen, Jie; Goodkin, Margot L; Tong, Warren; Attar, Mayssa., *Ocular pharmacokinetics and tolerability of bimatoprost ophthalmic solutions administered once or twice daily in rabbits, and clinical dosing implications., Clinical ophthalmology (Auckland, N.Z.) Vol.11, 2017*

Coursey, Terry G; Wassel, Ronald A; Quiambao, Alexander B; Farjo, Rafal A., *Once-Daily Cyclosporine-A-MiDROPS for Treatment of Dry Eye Disease., Translational vision science & technology Vol.7, 2018*

Petrakis, Vidmantas; Petrakiene, Ruta; Maung, Bo Bo W; Khan, Farehin; Alisauskaitė, Ieva; Olesky, Melanie; Newman, Joseph; Mutlib, Abdul; Niu, Xiaoyun; Satlin, Michael; Singh, Ravi S; Derendorf, Harmut; Walsh, Thomas J., *Pharmacokinetics and Comprehensive Analysis of the Tissue Distribution of Eravacycline in Rabbits, Antimicrobial agents and chemotherapy Vol.62, 2018*

Wink, Jason D; Gerety, Patrick A; Sherif, Rami D; Lim, Youngshin; Clarke, Nadya A; Rajapakse, Chamith S; Nah, Hyun-Duck; Taylor, Jesse A, *Sustained delivery of rhBMP-2 by means of poly(lactic-co-glycolic acid) microspheres: cranial bone regeneration without heterotopic ossification or craniosynostosis., Plastic and reconstructive surgery Vol.134, 2014*

Trost, Lawrence C; Rose, Michelle L; Khouri, Jody; Keilholz, Laurie; Long, James; Godin, Stephen J; Foster, Scott A., *The efficacy and pharmacokinetics of brincidofovir for the treatment of lethal rabbitpox virus infection: a model of smallpox disease., Antiviral research Vol.117, 2015*

Schopf, Lisa R; Popov, Alexey M; Enlow, Elizabeth M; Bourassa, James L; Ong, Winston Z; Nowak, Pawel; Chen, Hongming., *Topical Ocular Drug Delivery to the Back of the Eye by Mucus-Penetrating Particles., Translational vision science & technology Vol.4, 2015*

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### TOXICOLOGY REFERENCES

Crawford D, Friedman M., *Evaluation of the Developmental Toxicity of Vedolizumab, an  $\alpha_4\beta_7$  Receptor Antagonist, in Rabbit and Nonhuman Primate., Int J Toxicol. 2019 Sep/Oct;38(5):395-404.*

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### IMMUNOLOGY REFERENCES

Oscherwitz J, Cease KB., *Identification and validation of a linear protective neutralizing epitope in the  $\alpha_1$ -pore domain of alpha toxin., PLoS One. 2015 Jan 30;10(1):e0116882*

Reed MD, Wilder JA, Mega WM, Hutt JA, Kuehl PJ, Valderas MW, Chew LL, Liang BC, Squires CH, *Immunization with a Recombinant, Pseudomonas fluorescens-Expressed, Mutant Form of Bacillus anthracis-Derived Protective Antigen Protects Rabbits from Anthrax Infection., PLoS One. 2015 Jul 24;10(7):e0130952.*

Yamane K, Leung KP., *Rabbit M1 and M2 macrophages can be induced by human recombinant GM-CSF and M-CSF., FEBS Open Bio. 2016 Aug 15;6(9):945-53.*

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### TERATOLOGY REFERENCES

Breslin WJ, Hilbish KG, Page TJ, Coutant DE., *Assessment of fetal exposure risk following seminal excretion of a therapeutic IgG4 (T-IgG4) monoclonal antibody using a rabbit model., Reprod Toxicol. 2014 Sep;48:124-31*

Breslin WJ, Hilbish KG, Martin JA, Halstead CA, Edwards TL., *Developmental Toxicity and Fertility Assessment in Rabbits with Tabalumab: A Human IgG4 Monoclonal Antibody., Birth Defects Res B Dev Reprod Toxicol. 2015 Jun;104(3):117-28*

Catlin N, Waidyanatha S, Mylchreest E, Miller-Pinsler L, Cunney H, Foster P, Sutherland V, McIntyre B., *Embryo-fetal development studies with the dietary supplement vinpocetine in the rat and rabbit., Birth Defects Res. 2018 Jun 1;110(10):883-896*

Keswani SG, Balaji S, Katz AB, King A, Omar K, Habli M, Klanke C, Crombleholme TM., *Intraplacental gene therapy with Ad-IGF-1 corrects naturally occurring rabbit model of intrauterine growth restriction., Hum Gene Ther. 2015 Mar;26(3):172-82.*

Sakurai K, Matsuoka T, Suzuki C, Kinoshita J, Takayama G, Shimomura K., *Investigation of the teratogenic potential of VLA-4 antagonist derivatives in rats., Reprod Toxicol. 2014 Nov;49:162-70.*

Moore NP, Picut CA, Charlap JH., *Localisation of Lactate Transporters in Rat and Rabbit Placentae., Int J Cell Biol. 2016;2016:2084252*

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