



CBI

Mouse Model of Acne

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COMPARATIVE BIOSCIENCES, INC.
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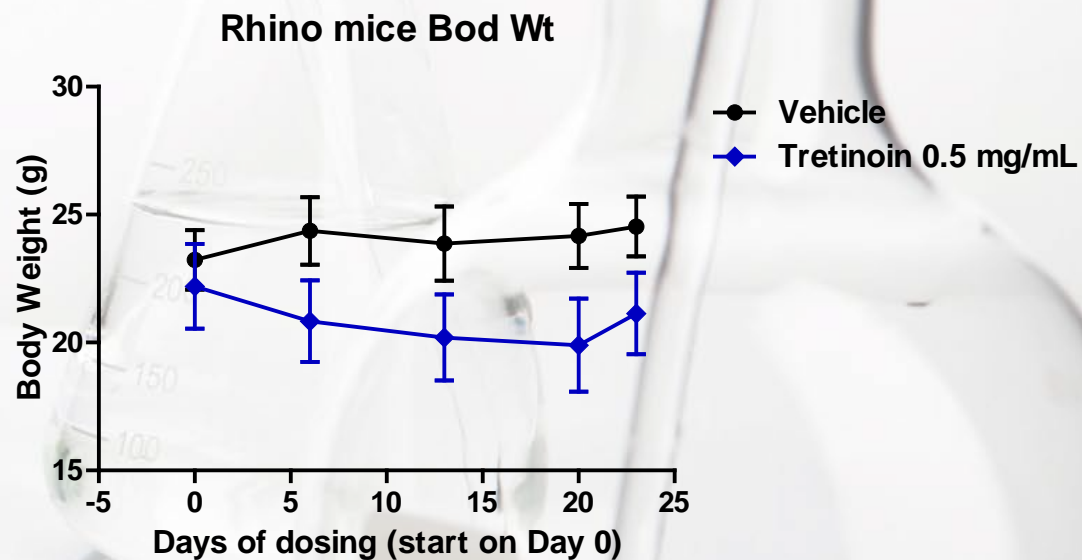
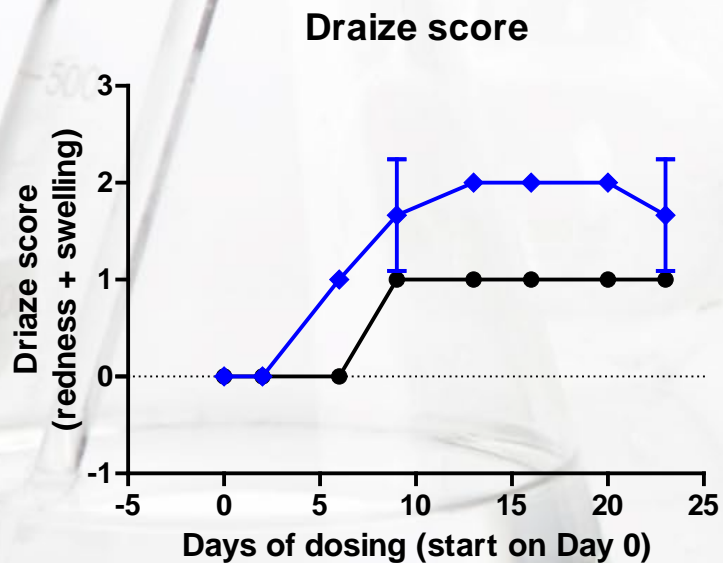
Rhino mouse model for human acne

- **Test system:**
- Male mice, homozygous for the mutation Hr<rh-J>, Stock code 001591, RHJ/LeJ.
- Wrinkled skin phenotype appears 8 weeks after birth. Mice are also hairless.
- Test anti-acne efficacy of Tretinoin© 0.05% (0.5 mg/mL retinoic acid). N=3 mice/group.
- Dose application, 50 uL cream spread over 2cm x 2cm area on back, daily for 21 days.
- Daily observations of skin flaking and dryness. Weekly Draize scoring for redness and edema. Twice weekly body weight.
- Euthanize 3 days after last dose application. Excise skin, stain H&E and PAS.
- Histopathology score for dermal thickness, inflammation, utricle density



Rhino mouse model for human acne

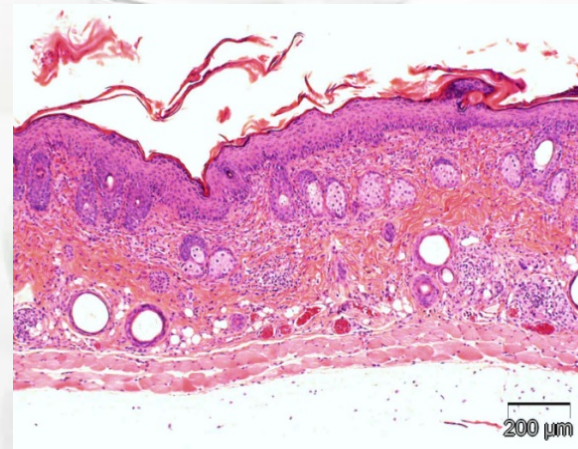
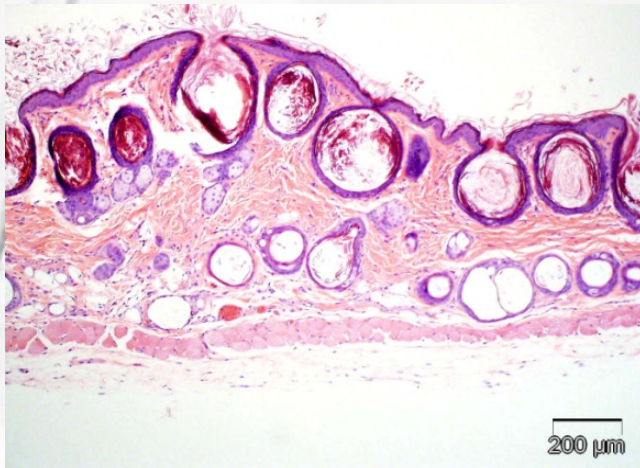
Tretinoin causes redness and body weight loss. Both are reversible after 3 days.



Rhino mouse model for human acne

Histological Assessment for Inflammation, Epidermal Thickness and Number of Utriculi.

No of mice/sex	Treatment	Inflam-mation	Epidermal Thickness	Utriculi number^
3M	vehicle	Minimal to mild	3-6 cell layers thick	15-20
3M	Tretinoin [®] , 0.05% (0.5 mg/mL)	Severe	15-25+ cell layers thick	1-2



→ Tretinoin greatly reduces utricli (acne-like lesions) but induces inflammation and skin flaking.



Service and Quality

- ***Thoroughness in planning and execution is key to a successful study.*** All protocols are vetted and approved by multiple personnel. Our QAU has a rigorous training program. All non-GLP studies are conducted in the spirit of GLP.
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