Also Known As:D1Lac, DBA1 Lac

DBA/1LacJ mice have been widely used in studies of collagen-induced arthritis, although recent in-house studies suggest that the response to collagen induction in the DBA/1LacJ strain is not as robust as indicated by earlier studies. DBA substrains of mice, derived from DBA which is the oldest inbred strain of mice, have been widely used in many areas of research including age-related hearing loss.
Important Note
This strain is homozygous for $Cdh23^{ahl}$, the age related hearing loss 1 mutation, which on this background results in progressive hearing loss with onset after 10 months of age.

Detailed Description
Historical reports indicate DBA/1J and DBA/1LacJ mice immunized with type II collagen develop a severe polyarthritis mediated by an autoimmune response. Recent in-house studies suggest that the response to collagen induction in the DBA/1LacJ strain is not as robust as indicated by earlier studies. Arthritis models such as B10.Rii-H2b H2-T18/I(71NS)SnJ (Stock No. 000457) and BUB/BnJ (Stock No. 000653) can be used as alternatives to DBA/1LacJ. Similar to the human condition, mice with collagen-induced arthritis display synovitis and erosions of cartilage and bone. In addition, susceptibility in both humans and mice is linked to the expression of specific MHC class II molecules. DBA/1 mice show a low susceptibility to developing atherosclerotic aortic lesions (20 to 350 um2 atherosclerotic aortic lesions/aortic cross-section) following 14 weeks on an atherogenic diet (1.25% cholesterol, 0.5% cholic acid and 15% fat).

Development

Selected References

Genetics

$Cdh23^{ahl}$
Genotyping Protocols
Genotyping resources and troubleshooting
Inbred mouse strains are maintained through sibling (sister x brother) matings; no genotyping required.

Breeding Considerations
This strain is a good breeder.
Additional Breeding and Husbandry Support

Appearance
dilute brown
Related Genotype: a/a Tyrp1^b /Tyrp1^b Myo5a^d /Myo5a^d

Citation
When using the DBA1 Lac mouse strain in a publication, please include JAX stock #001140 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Homozygous for Cdh23ahl, 1 pair minimum</td>
<td>$2,854.50</td>
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